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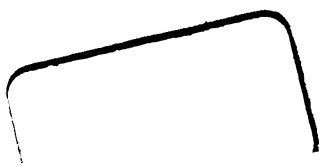

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OF

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MEDICINE AND SURGERY.

JANUARY, 1845.

ART. I.—*Remarks on Mustard Poultices, applied extensively to the surface.* By WILLIAM O. BALDWIN, M.D., of Montgomery, Alabama.

The application of poultices as a remedial agent in many forms of local inflammations, spasmodic pains, &c., has long been practised and highly appreciated, as not the least efficacious among the many sanative agents available in such cases. By some they have been and are still used with reference solely to the specific virtues of the substances of which they are composed, whilst others esteem them all for their one common virtue—attributing to them no other curative effect than that which arises from their capability of retaining warmth and moisture about the parts to which they are applied. Both of these views, as to their *modus operandi*, are

probably correct; for the results which follow the endermic use of medicine undoubtedly establishes the truth of the former; whilst all can attest the good results which are frequently obtained from the application of *simple* poultices to inflamed and painful parts, which of course can be attributed to nothing more than the relaxation afforded by the warmth and moisture which they contain. It is for this property of the poultice, added to the increased revulsive effect of the mustard, when combined, that I propose to extend their use to acute diseases, involving the whole animal economy.

From the marked success which has attended the application of mustard poultices to the entire, or greater portion of the surface of the body and extremities, in the treatment of some diseases of an idiopathic character, I am disposed to regard them as a remedy of more value than their hitherto partial use would seem to indicate; for although highly esteemed and extensively employed in certain *local* affections, so far as I am aware, their application has been restricted to such diseases, or when used in those involving a greater extent of tissue they have been applied only to combat some local symptom.

The experience which I have had with the mustard leads me to look upon it as a remedy peculiarly applicable to diseases of a congestive type, and more especially to *congestive fever*. I have found it a most prompt and available remedy in one or two instances in which I have used it in *convulsions* occurring in children; and I have also applied it advantageously in some cases of *visceral inflammation*. In a case of *trismus nascentium* in which I used it, there was a considerable abatement of the disease under its influence; but as the violent symptoms afterwards returned and the case terminated fatally, it cannot be considered as furnishing any testimony in support of its efficacy in that class of diseases. I believe, however, that if my directions had been carried out during the twelve hours of remission and comparative ease which the little sufferer seemed to enjoy immediately after the application of the poultice, which would have brought it fully under the influence of opium, it might have succeed-

ed. That, however, is a bare supposition, but I was so well pleased with the effect which followed its application, that, though the case proved fatal, taking into consideration the very unsatisfactory results which have generally followed the treatment of that disease, I shall test its efficacy further should a suitable occasion offer.

From its powerful agency in producing diaphoresis, that end so often coveted in the treatment of *synochal fevers*, I am induced to believe the mush poultice, with or without the mustard, applied in this way, might form a valuable adjuvant in the treatment of that class of diseases.

These remarks are not intended to depreciate the value of free internal medication. Indeed, in most of the cases in which I have used the poultice it has been in conjunction, or at least, not to the exclusion of any other remedy which might have been thought available—so that one who may be disposed to cavil, might with some plausibility, dispute its agency in producing the beneficial results which I have ascribed to it. Nevertheless, in a great majority of the cases in which I have resorted to it, in the diseases alluded to, its effect has been so apparent that notwithstanding the administration of other remedies, at the same time, no one could mistake its promptly favorable influence. And it frequently happens that our only means of making an impression upon the disease is through the agency of external applications. As, in *cerebral congestions* attended with coma and insensibility, it is always difficult, and sometimes even impossible, to administer medicines internally—in such cases the mustard poultice is entitled to the very first and highest consideration, as the remedy most likely to produce the desired objects.

Though this is a remedy of most singular simplicity, yet a few remarks as to the mode which I have adopted, both in its preparation and application, may not be considered inappropriate.

Supposing the patient to be an adult of the ordinary physical proportions—boil about a bushel of meal to a tolerably consistent mush, and spread upon a sheet which has been placed

on a wide mattrass, the mattrass lying on a low bedstead. The mustard, which should be prepared in the meantime, by mixing three bottles with meal, in the proportion of one part of the former to five or six of the latter, and made into a thin batter by the addition of hot water, is then poured over the mush, and the whole covered by a thin sheet. The patient is then placed about the middle of the poultice, the sides of which are folded over him—completely enveloping every part except the head. The mustard applied in this way is rendered much more active, and will redden the skin when diluted in this way to one-sixth of its strength, almost as soon as cataplasms of unmixed mustard, and much quicker when applied to cool or cold extremities—consequently, if applied without being blended with some farinacious substance it would be very likely to produce vesication.

When enveloped in this way, I have never allowed any patient to remain longer than from a quarter to half an hour, but have been governed as to the length of time which they were allowed to remain altogether by the impression made upon the disease, and see no reason why they should not be kept on a much longer time, if necessary; for, when combined with the mustard in this way, it is much less apt to produce a feeling of faintness and debility than the warm bath. It will sometimes be found inconvenient to use the poultice in this way, for want of proper and necessary appliances; in the cases of young men, for instance, living in counting-houses and other places where they have but few conveniences. In such instances a less troublesome mode, and one which I have practised in a few instances, is to envelope each limb separately and cover completely the chest and abdomen, from the neck to the pubis, with the poultice prepared in the same way, and spread on large towels. The former mode is much the most powerful, and when practicable, is to be preferred; but I have found the latter to answer a very good purpose in some instances, and from the fact that it can be borne for a much longer time, and with less annoyance to the

patient, I think, perhaps, it might be equally efficacious in cases of a less urgent description.

In illustration of these views, I will append a few cases which occurred in my practice, and in which I used the poultice, prepared in the manner described above.

In the first case which follows, the mustard was left out of the poultice, in consequence of a sufficient quantity not being at hand. It will also be seen in this case, that the application of sinapisms and extensive blistering had been practised previous to the use of the poultice, without producing any favorable impression on the disease.

Case I.—October 5th, 1841, I was called in consultation with Wm. Morris, to Mrs. E——, æt. about 24 years, a resident of this city, then on a visit to an adjoining county. Has coldness of the extremities; small, frequent and irregular pulse; excessive nausea, and occasional vomiting; great restlessness and thirst; complains of a sense of oppressive weight and fulness about the præcordial region; tongue white, furred and enlarged. This was the fifth day of her disease, and I was informed by Dr. M. that her symptoms were but little altered since her attack—her extremities had only been warmed by the application of artificial heat. The treatment which had been pursued consisted of mercurial and other laxatives, and stimulants internally, sinapisms to the extremities and epigastrium, &c. The bowels had been pretty freely moved—evacuations thin, and of an indigo-blue color.

The treatment agreed upon after my arrival, was sulph. quinine grs. vi., to be repeated at intervals of four hours, and hydrarg. cum creta grs.vi., pulv. opii gr.ss.; M. to be repeated every sixth hour; warm applications to the extremities.

6th. Had several motions, consisting of the same thin, serous and bluish matter, interspersed with flakes of mucus of the same color; condition in other respects the same. Same prescription continued and warm bath ordered.

7th. Condition unaltered. Applied a blister to the epigastrium and nape of the neck; ordered hydrarg. subm. grs.iv.,

creta prep. grs.iii., to be repeated at intervals of four hours; warm applications and occasionally sinapisms to the extremities. Discontinued quinine and other previous prescriptions.

8th. No improvement; secretions from bowels same; applied blisters to the extremities. Ordered tr. valerian ammon. ℥ij. every third hour. Calomel, &c., continued.

9th. Evening.—Blisters vesicated; pulse rather more frequent, but still irregular and weak; has vomited most of the medicine taken in the last 24 hours, and her symptoms generally present rather an aggravated aspect. Fearing the natural tendency, which characterizes some of our diseases, to a crisis on the 9th day, and seeing no indication to a favorable one in this instance, we agreed to envelope the patient in a mush poultice, prepared in the mode described above, leaving out the mustard; which was accordingly soon done. The patient thus covered to the extent of an inch, or an inch and a half in mush, was allowed to remain about 18 minutes, at the end of which time, as the pulse had diminished in frequency and had become more regular, the skin on the forehead and face being covered with a warm perspiration, she was removed to bed. One hour after, her extremities were still warm, and the surface generally covered with a warm moisture, and her pulse manifestly improved in volume and regularity. Gave subm. hydrarg. grs.x. She is to take no other medicine through the night, and be allowed to sleep as much as possible.

10th. Extremities remain warm and skin soft; rested well through the night; pulse regular, and but little above a healthy standard in point of frequency, and also improved in volume; that feeling of fulness and oppression about the præcordia, which has been so distressing throughout the disease, entirely disappeared; after an enema, administered this morning, had two dark, consistent evacuations—in short, there is an abatement of all the violent symptoms, and the patient expresses herself as being much relieved. No medicine given this morning, but directed her to have chicken broth occasionally through the day.

11th. Continues to improve; no directions except as to diet.

13th. Is able to sit up in bed. After this, her convalescence was rapid.

Case II.—Extracts from notes on A—— C——, a female child, æt. about 20 months, who had been laboring for seven days under a severe attack of *pneumonia*, with *gastro-enteritic complication.*

February 27th, 1844. She continued to get more restless and uneasy until half past 2 o'clock, P.M., when she presented many apparent evidences of the moribund condition. Pulse 164, small and weak; respiration 44 in the minute, and imperfect; (too restless to admit the use of the stethoscope); eyes thrown back and fixed in their socket, with the eye-lids firmly separated; a disposition to throw the head back upon the spine, (as in opisthotonos), with some rigidity of the cervical and dorsal muscles; throwing the arms about, tossing the head, and writhing the body; clawing at the tongue, and at all the clothes that were brought in its way; extremities cold, the lower ones to a few inches above the knee. In this situation the patient was allowed to remain for sometime without a prescription, (more than the sinapisms which had been applied to the extremities) under the belief that if she was not in *articulo mortis* she was rapidly approaching it, and that all efforts to arrest the immediately fatal termination of her disease would be fruitless. Dr. Sims of this place, was attending the case with me, and we ordered, at length, a hot pediluvium, made strong with mustard, to be applied until a *mustard poultice* could be prepared, which was accordingly soon done in the usual way, and the entire surface completely enveloped. Up to this time, however, there was no improvement, and the weakness and frequency of the pulse, added to her extreme restlessness, precluded the possibility of counting it with anything like accuracy. She remained in the poultice eleven minutes, was taken out and washed in a tub of warm water, and placed in bed, where she remained quiet and apparently easy; her pulse increased

in volume, and all those alarming symptoms which seemed to threaten immediate dissolution, considerably abated. Examined her two hours after—pulse 138, and manifestly increased in volume; eyes shut, appears to be sleeping quietly; surface generally warm and soft; reaction appears to be permanently established.

28th. Continued to rest well through the night. Pulse 132.

She remained in this condition for a day or two, which seemed to be so favorable, contrasted with her situation on the 37th, that we were inspired with strong hopes of her recovery. But on the evening of the next day, she passed two round worms; meteorism and tenderness of the abdomen, with retention of the urine supervened, and she died at night on the 3d of March, of the complication, her primary disease having been much abated.

Though the case in the end proved fatal, yet the agency of the poultice in allaying that truly urgent train of symptoms which supervened on the 27th was so manifest, that I am disposed to offer it as an additional proof of the power and utility of the remedy employed in this way.

Case III.—*Scarlatina.* March 19, 1844. Harrietta, a negro girl, æt. about 12 years, attended by Dr. Boling and myself. Saw her a few hours after the first symptoms of her indisposition. Was attacked with chilliness, succeeded by vomiting and febrile excitement. Pulse 147; stomach irritable; tonsils red and tumefied; skin arid and hot; bowels constipated. Ordered subm. hydrarg. grs.x. and a diaphoretic mixture of spts. æth. nit., &c. &c.

20th. Morning. Pulse 150; had a very restless night; vomiting continues; complains of severe pain in the head. Medicine produced several motions. Diaphoretic mixture continued.

Evening. Pulse 170; tongue dry; great thirst; less irritabilty about the stomach; in other respects the same. Ordered warm bath, and decoction of serpentaria at intervals during the night.

21st. Pulse 166; has been delirious since the early part of the night; had two motions; condition same in other respects. Ordered sulph. quin. grs.vi. at 8 o'clock, to be repeated at 12 o'clock. Decoction serpentaria continued.

Evening. Condition same. Ordered sulph. quin. grs.iv., pulv. opii gr.¼th. M.—to be repeated at intervals of four hours.

22d. Same condition; pulse 166; passed a restless night, starting, incoherent talking, &c. Quinine continued. At 11 o'clock, A.M., she was enveloped in a *mustard poultice*, allowed to remain fifteen minutes, and after being placed in a warm bath and washed, was removed to bed. Applied a blister of flies to the scalp; gave subm. hydrarg. grs.v., and continued the quinine. While she was in the poultice her forehead became moist, and on counting her pulse immediately after she was removed to bed, it was found to be reduced to 154.

Evening. Pulse reduced to 134; skin soft; more rational and calm. Quinine continued.

23d. Pulse 120; she is perfectly sensible; rested tolerably well through the night; countenance cheerful, and expresses herself as feeling much better. Quinine continued, and ordered ol. ricini ʒvi., which produced several consistent, bilious evacuations. She continued to improve slowly; desquamation commenced on the 30th and was general.

In this case there were many other remedies used, but the commencement of convalescence was marked by the salutary impression of the poultice, which was observed during its application.

Case IV.—October 6th, 1843. J—— W——, a bank officer, æt. about 27 years, was attacked four days ago with a chill, succeeded by nausea and vomiting; dry tongue; excessive thirst, great oppression about the epigastrium; pain in the head and back, and frequent pulse; skin moderately warm and dry. The treatment during this time consisted of mild mercurial and other laxatives, which produced moderate alvine evacuations, one bloodletting, sinapisms to the epigas-

trium, and quinine when it was thought advisable. This morning, pulse 126, and small; excessive vomiting; surface generally cool; extremities very cold, the lower ones to within a few inches of the groin; copious diaphoresis about the head and face; countenance pale and somewhat sunken, and speaks but little above a whisper. Everything given by the mouth is thrown up almost immediately. Enveloped the extremities, and covered the thorax and abdomen with mustard poultices. About an hour after their application the system appeared to rally considerably, and as the stomach had become quiet, he was ordered to take sulph. quin. grs.iv., sulph. morph. gr.¼th, made into a pill, with the ext. taraxaci q. s. The poultices were allowed to remain on about four hours, when, at his earnest request, they were removed. His pulse by this time had fallen to 92; surface generally warm; vomiting had ceased; expresses himself much relieved; says he felt a great oppression about the praecordia which is now entirely gone. Quinine was continued in six grain doses, and occasionally combined with gr. ¼th morphine, for the succeeding 24 hours, which produced extreme restlessness. This, however, subsided a few hours after the discontinuance of the remedy—from which time he continued to convalesce without taking any more medicine.

In this case, the excessive irritability of the stomach precluded the use of internal remedies, until the most urgent symptoms had greatly subsided.

Case V.—Wade, a lad, æt. about 7 years, has been sick for several days, and in the absence of Dr. Henry, the attending physician, I was called, Oct. 7th, 1843, at night. Found him with pulse 146, small and weak; deep coma and insensibility; surface generally cool; extremities very cold; clammy perspiration about the head and face. The friends had applied sinapisms to the extremities before my arrival, which, however, had failed to redden the skin. Ordered the extremities to be enveloped and the abdomen to be covered with mustard poultices. Nothing was given the patient by the mouth—he was left with the poultices on for about an hour

when he spoke. A little while after, he complained of the burning caused by them, and cried to have them removed. They were, however, allowed to remain on about two hours, when they were taken off; his pulse had by that time declined to 124; the patient was rational, and the surface of his body generally warm.

In the meantime, Dr. H. arrived, and we made the following prescription for the night:—sulph. quin., hydrarg. c. creta. āā grs. xxiv. M. in chart. xii., div., one to be given every second hour. They did not extend the poultices as high up on the extremities as I ordered, or as I generally do.

I did not see the case again, but was informed that he continued comparatively comfortable through the night, and convalesced slowly, the greatest subsequent annoyance being sores on his legs, which were occasioned by the poultice having been made too strong with mustard.

In a case of *congestive* fever, treated successfully, but which is too tedious to detail at length, I kept the extremities enveloped, and the chest and abdomen covered with the mustard poultice, for forty-eight hours—reapplying them every four or five hours.

In the treatment especially of those diseases which depend upon a want of balance in the circulation, and when the structural lesion is not very extensive, the mustard poultice used as I have recommended it, if not in itself a curative remedy, will, at least, frequently be found a powerful adjuvant.

October 23, 1844.

ART. II.—*A Case of Emphysema.* By E. W. HARRIS, M. D., of Cape Girardeau county, Mo.

The report of Dr. Girdner's case of Emphysema induces me to publish the particulars of one similar to it in every respect.

Mr. C——, aged 40 years, received a gun-shot wound in 1841, the ball passing through the upper arm, and fracturing a rib, the lung being wounded by a spicula of bone.

I was called 24 hours after the accident occurred, and found him under the care and management of a German, who called himself *doctor* (one of the cold-water tribe). I found the patient enveloped in sheets—sheets, bed and all, deluged with cold-water; almost pulseless; the whole surface cold, and of a leaden hue; every part of the body enormously distended, the scrotum being swollen to the ordinary size of the adult head; every portion of cellular membrane seemed to be filled with air, the crepitus of which was distinct and audible.

The wet clothing was speedily removed, dry warmth applied, and diffusible stimulants given; under which, reaction was established in about six hours.

My German friend said to me, that "it ish de dhropsies; you must tap him." To the latter I assented, and punctured the scrotum, and the skin in some half dozen other places, from which punctures the air could be heard to escape with considerable force. The German, offended that it was not *water*, left. The patient, much relieved, set out in two days for his home, in Illinois, and in a short time recovered perfectly.

An old hunter, who saw the above case, enquired of me the cause of the swelling, stating that he had frequently seen the same in deer when shot in the 'lights.'

November, 1844.

ART. III.— *Observations on Erysipelatous Fever, as it occurred in Memphis, Tennessee, in April and May*, 1844, *with a report of eight cases.* By LEWIS SHANKS, M.D.

Preliminary to the observations we design making on the character and type of the erysipelatous fever, together with a report of the cases which occurred here, some general re-

marks on the character of diseases as modified by the seasons, by the clearing up and improvement of the country and the city, and the change in the habits of the people, might be interesting and useful, and necessary to a clear understanding of our views of the nature and treatment of this disease.

When the diversity of opinions both in Europe and America, of the nature and proper treatment of erysipelatous fever is considered, it must be attributed, either to the blinding influence of prejudice, or to the influence of season, climate, local atmospheric causes, or the difference in the constitutional tone and vigor of the subjects of the disease in different places and countries. If to both causes, and especially to the latter, this difference of opinion among highly distinguished members of the profession, may be attributed; an additional reason is afforded for tracing up the influence of the causes, that may have operated in determining the type of the disease, and indicating the proper treatment in the cases that occurred here. So full and complete are the general descriptions of this disease and its treatment furnished by the most able medical writers, &c., especially by Dr. Nunneley of Leeds, that little seems left to be done, except the investigation and explanation of local and epidemic influences, which modify the type and violence of the disease in different places and at different times, requiring a corresponding difference in the treatment.

Though we have proposed this extended consideration of the causes, which tended to make up the medical constitution of the atmosphere the present year, in this region of country, and to give character and modification in some degree, to all diseases, as being interesting and useful; we do not design more than a brief reference to these causes, and to their effects, as manifested in the general character of diseases.

We have not only been constantly impressed with the observation ourselves, but we have frequently heard the remark made by intelligent and observing physicians, that disease is more or less inflammatory—that there is more or less tendency to disease of particular organs—that depletion is more

or less required—that purgatives are more useful, or tolerated worse, &c., some years than others, at the same period or season.

Inexplicable as may be the causes of the general constitution of the atmosphere of particular seasons producing these results, the correctness and truth of the remark will be admitted as unquestionable. While the diseases of Memphis and the surrounding country have each year exhibited some modification in their general character from this cause, a general but obvious change has been going on, probably since the first settlement of the country, and certainly for the last eight years. In the early settlement of the country and town, when but a small proportion of the lands was reduced to cultivation, and the timber was chiefly left standing upon the fields—when the town was like an encampment in the woods, closely surrounded by a heavy forest and thick undergrowth, the atmosphere was so loaded with humidity and miasm, that a state of atony and relaxation of the system was the universal condition of the permanent population who had been long exposed to it.

This condition of the system rendered it peculiarly liable to intermittent and remittent fevers, attended with congestion and great functional derangement of all the secretions, and in the fall and winter seasons especially, to violent and suddenly fatal attacks of congestion of the brain and lungs. Protracted cases of an inflammatory character of disease, were unknown except in recent settlers, arriving with the tone and elasticity of the system common in older, more elevated and improved countries, with a purer, dryer and more bracing atmosphere.

With the growth of the town and the improvement of the country—the clearing up and tramping the lands, rendering them firmer and dryer, the atmosphere has gradually been becoming less humid and filled with miasm, and more elastic and bracing; and the consequence is, that disease has gradually become less congestive and functional, and more inflammatory, complicated, and protracted in its character.

This change has been gradually and obviously manifesting itself every year, but in no year previously have the diseases of the winter, spring, summer, and autumn presented so decidedly an inflammatory character, and required so much depletion by venesection, and so rigid an antiphlogistic treatment as the present.

The statement of these general facts we have deemed proper, before the report of the cases of erysipelatous fever that occurred here, and the treatment that was instituted, because the depletion and antiphlogistic remedies mainly used and relied upon, were not only justified, but required by the medical constitution of the atmosphere of the season and this locality, modifying and rendering inflammatory a disease which in its general character is a *pyrexia* of excessive action, but deficient in the power and tone of the system.

Case I.—R—— W——, aged about 30, a carpenter, of steady habits and pretty good constitution, was attacked April 21st with slight hoarseness attended with pain in swallowing.

24th. Hoarseness and pain in deglutition very much increased; the epiglottis so enlarged and œdematous as to project up visibly. In deglutition there was not only great pain but part of the fluids passed into the trachea producing strangling and great distress. The pulse, tongue, fauces, skin, and general condition of the skin normal. No medicine had been taken but a purgative. Treatment—ordered a mercurial cathartic; rubefacient to the throat, and a stimulating gargle of infusion of red pepper, salt and vinegar.

25th. Fever developed; pulse about 90; œdema of the epiglottis increased; swallowing more painful and distressing; venesection ℥xxv.; tartarized antimony grs. viij. in solution to be taken through the night so as to produce repeated nausea, vomiting and purging; rubefacients and gargle continued.

26th.—7 A.M. Deglutition less painful and better. The tartar emetic has produced repeated vomiting and purging.

Remedies continued; the antimonial to be given in febrifuge doses.

5 P.M. Fever increased; venesection ℥xx.; cal. grs.xv.; stimulating foot-bath; gargle continued.

27th.—8 A.M. Deglutition much less painful and better. The œdematous condition of the epiglottis much relieved. Inflammation more diffused over the mouth, fauces and throat.

6 P.M. Considerable fever, but less swelling of the epiglottis; swallowing pretty good; ipecac. and cal. gr.ij. each to be given every two hours.

28th. The local disease of the epiglottis so relieved as not seriously to effect deglutition, which is still however attended with pain extending to all the muscles concerned in swallowing.

The fever continued about a week longer, attended with pain in the pectoral and dorsal muscles, and occasionally paroxysms of spasmodic action in these muscles, so violent and painful as to require two more general bleedings, and repeated local bleedings with cups, followed by blisters, to relieve them. Auxiliary to the depletion, alteratives, diaphoretic anodynes, &c., were persevered in, until slight ptyalism was produced. The disease was gradually subdued and the patient recovered.

Of a very similar attack of this disease, we have been informed, Dr. Russell, of Huntsville, Ala., died some months since.

Case II.—Mr. R——, aged about 45, living in the same house, was attacked May 7th with phlegmonos erysipelas of the fore arm and arm. The limb swelled very much, attended with fever, furred tongue, and deranged biliary secretions. Suppuration occurred, extending between the muscles from near the wrist to the elbow. This case was treated chiefly by my partner, Dr. Frayser, (who assisted in the treatment of most of the cases), with mercurial purgatives and febrifuges, of either antimonials or ipecac. and cal. When suppuration took place, free incisions were made to discharge

the matter, followed by bandaging and the cold dash. He recovered in three or four weeks.

Case III.—Mrs. R——, while dressing her husband's arm had a slight sore on her thumb, on the side of the nail. At that point inflammation commenced May 20th, and the thumb exhibited the appearance of a superficial whitlow.

23d. Thumb less swelled, but a red line extends from it along the course of the absorbents to the axilla. Complains of lassitude and aching in her limbs, with slight fever, and frequent but feeble pulse. Ordered cal. grs.xv.

24th.—7 A.M. Still walking about, but increase of fever and lassitude. Ordered febrifuge doses of cal. and ipecac., to be repeated every two hours.

25th.—6 P.M. Severe pain, tenderness and heat in the abdomen, (which had commenced the evening before), attended with rigors, dry tongue, thirst, frequent tense pulse, and cold extremities. Venesection ℥vj.; cal. grs.xv., morph. gr. ½d, stimulating foot-bath, hot fomentations to the abdomen, to be applied frequently over a blistering plaster.

26th.—7 A.M. Pain less severe; pulse 130; extremities cold; tongue dry; very restless. ℥iss. oil, emollient poultice to the abdomen, and sinapisms to the extremities.

5 P.M. All the symptoms worse. Great restlessness; prostration; internal heat; very frequent pulse, and extremities cold.

27th. Died in the night. Post-mortem examination objected to.

Cases IV. and V.—Were daughters of II. and III., aged about 12 and 14 years. They were attacked, one the 22d, the other the 24th of May. In both cases the attack commenced with slight chilliness, sore throat, and a remittent form of fever, and about the third or fourth day of the disease, an erysipelatous eruption occurred in both cases, on the side of the face, extending to and around the ear, and down the neck. Treatment:—One was bled, and both were treated with ipecac. and cal. in broken doses, to produce vomiting and purging, followed by mercurial cathartics, worked off

with oil, and also febrifuge doses of antimonials or ipecac. Nitrate of silver applied freely to the eruption, which arrested its progress. They both recovered.

These were the first cases, and they all occurred in the same house. Shortly before they got sick, the house was plastered, and they lived and lodged in it during the time, moving from one room to another while the plastering was going on.

Case VI.—E—— R——, a girl, 14 years old, a visitor of case I., who had been removed near her place of residence, to his brothers, was attacked with sore throat and the erysipelatous eruption very much as cases IV. and V. were. She died about the 18th day of her disease, evidently from effusion in the brain. Having seen her near the close of her disease only, in consultation, the previous treatment cannot be particularly given.

Case VII.—J—— W——, brother of case I., to whose house he had been removed, was attacked about the 10th of May. Having called on the 12th to see case I., who was then convalescent, I saw him, and as he was in the care of another physician, only made a slight examination of his case, which exhibited all the characteristic symptoms of the others—frequent pulse, sore throat, and the erysipelatous eruption on the cheek and neck. Further than seeing a blistering plaster over the eruption, the treatment was not ascertained. Two days afterwards he died of effusion in the brain, as his friends reported there had been delirium some thirty-six hours previous to his death.

Case VIII.—On the 27th of May I was confined with this disease. For near a week previously I had felt languor and lassitude, with increased sensibility to cold, attended with wandering, gnawing pains, a dull headache and a very unpleasant metallic taste.

27th.—8 P. M. Headache; slight continued chilliness; pulse 110, and soreness of the throat. Treatment:—Hot foot-bath, warm drinks, followed by a cathartic.

28th.—5 P.M. Though the perspiration the night before

was copious, and the cathartic had operated well in the morning, the fever, sore throat, restlessness and care all increased. Treatment by Dr. Frayser:—Venesection ℥xx., warm diluted drinks, pepper gargles, and rubefacients to the throat.

29th.—5 P. M. Fever continues; exacerbations in the evening; tonsils not much swollen, but from the condition of all the muscles concerned in deglutition and the cellular structure of the anterior part of the neck, swallowing is extremely painful, and almost impracticable. Erysipelatous eruption commenced on one side of the face, extending to and around the ear. Venesection ℥xxv., cal. grs.xv., liniment to the throat, emollient poultice, hot foot-bath, pepper gargle, &c.

30th. Symptoms not much changed; pulse 110 to 120; deglutition almost imperceptible; remedies continued. Nitrate of silver rubbed over the eruption.

31st. No improvement in the symptoms; eruption has not increased. Venesection ℥xx., cal. and aloes in broken doses, other remedies continued.

October 1st.—7 A.M. No better. Remedies continued by Drs. Christian and Frayser.

8 P.M. Take gr.ss. tartar emetic every two hours until vomiting or a decided impression is produced.

2d.—7 A.M. Better. The tartarised antimony, after two doses were taken, produced great nausea and relaxation, resulting in gentle perspiration, which was kept up by Dover's powder and cal. taken every two hours. Deglutition less painful and difficult and every way more comfortable. For the first time in four days a cup of drink could be swallowed, still, however, with some difficulty, but much less pain. My recovery from this hour was gradual, but as rapid as could be expected. An unpleasant and distressing symptom which had existed during the attack; the suspension of healthy secretion in the fauces and throat, accompanied with an excessively pungent alkaline taste, like a mixture of calcined magnesia and lime, continued for several days. This dryness

and peculiar feeling in the throat was gradually relieved by acid drinks, for which there was considerable craving.

Tonics and nourishing diet restored perfect health in a few weeks.

Although the first of these cases originated without the possibility of contagion, as no cases of the disease had occurred previously, all the other cases occurred among persons who were a good deal with the sick, and no case occurred in this vicinity out of the circle of the visitors of those who were laboring under the disease. It is, however, proper to state also, that many who visited these cases were not attacked with the disease.

The circumstances all considered go very far in establishing the fact, that the disease was communicated by contagion, and that the limited extent to which it spread, not amounting even to an endemic, was owing to the want of the atmospheric condition susceptible of being so infected by the contagion from a few cases, as to become the exciting cause of the disease beyond contact with the sick; and thus spread it either as an endemic, or as an epidemic fever, as it has prevailed within two years past in the New England States, and in the southern parts of Indiana and Ohio, according to the accounts given of it by Drs. Hall and Dexter, and Dr Sutton, published in the Philadelphia American Journal of Medical Sciences; and also in the southern part of Mississippi, as described by Dr. Pickett in the New Orleans Medical Journal.

We have expressed the opinion that erysipelatous fever, in its general character, is a *pyrexia* of excessive action but deficient tone and power of the system, and if it were proper in this article to do so, the preponderating weight of medical authority, from ancient down to modern writers, could be adduced in its support; but not caring for any display of this kind, we shall only consider the characteristic distinction between *pyrexiæ* and *phlegmasiæ* as classes of disease, as shewn by the experiments of Andral and others on the blood, in various diseases and conditions of the system; and assuming this disease to be a *pyrexia*, consider its peculiar character,

from the specific cause which produces it, and from the condition of the system, and especially the blood, which gives rise to it, or is attendant upon it.

In *pyrexia*, the experiments of Andral have shown, that the proportion of fibrin is never increased, but often greatly diminished, while in *phlegmasia* the proportion of fibrin is always increased, and continues to increase until the inflammation is relieved. These relative proportions of the fibrin as a constituent of the blood, varying in amount in different cases and in the different stages of disease, are invariably characteristic of the two classes of disease, while the other constituents of the blood—the red globules—albumen and the serum may exist in various proportions in either class, only modifying the cases without giving invariable characteristic distinction to them.

In its general character, erysipelatous fever is peculiarly distinguished from inflammatory fever by the absence of adhesive inflammation, uniting and consolidating the serous membranes, and bounding and effectually limiting the extension of suppuration in the cellular structure. To the peculiar condition of the system—the state of the fluids, and the deficiency in the proportion of fibrin in the blood, precluding the effusion of plastic lymph to be formed into organised structure, is this characteristic difference mainly to be attributed. Instead of the adhesive inflammation and healthy suppuration that occurs in the phlegmasiæ, in erysipelatous fever, in the parts most impressed with disease there is effusion from the serous membranes, of bloody serum, or sero-purulent fluid with flakes of curdy lymph floating in it, and in the cellular structure profuse effusion of serum and lymph, producing great and diffuse swelling, and instead of healthy suppuration, the effused fluid degenerates into a sanious, or sero-purulent fluid, floating flakes of lymph, and extending often in the cellular structure between the muscles, their entire length; dissecting and separating the skin and muscles of a limb between the joints, or running the course of other muscles their entire length.

Taking this as a description of the peculiar general character of erysipelatous fever; the grades of the disease are so various, that it is sometimes so modified by various causes and circumstances, as the temperament of the patient, the natural vigor of constitution, the effects of kind and amount of food and clothing, habits of life, season of the year, age, the medical constitution of the atmosphere, &c., as to approximate genuine phlegmasia in its symptoms and pathological effects upon the system.

Admitting, therefore, willingly, all that may be claimed as to the different grades of this disease, and contending for diversity, and even opposite courses of treatment as being indicated in its different grades, we nevertheless incline to the opinion, that it is a disease sui generis, peculiar in its character, and produced by a specific cause, when it spreads to any considerable extent; and when it occurs sporadically in individual cases, is produced by the development of a peculiar constitutional susceptibility to the disease from ordinary causes.

After considerable investigation and much reflection on the subject, the treatment instituted and carried out in the cases that occurred here, would not be materially changed, because it was indicated and guided by the general inflammatory character of all diseases at that time, by the symptoms, the condition of the system, from the constitution, the habits, &c., of the different cases, without especial regard either to the name of the disease or to the high authority that erysipelatous fever, with diffuse inflammation, is a disease of feeble power and tone of the system, but excessive action.

The modifying causes and circumstances to which we have alluded, so influenced the disease in these cases as to approximate them near to the true phlegmasiæ, and the prompt and decided reduction of excessive action seemed indispensably necessary to prevent effusion in the brain in some of them, and in the cellular structure of the neck and about the throat, as well as to protect the brain, in my own case.

The case of the phlebitic form of the disease locating upon the peritoneum, in its course and speedy fatal termination,

corresponded with all the cases seen by Drs. Hall and Dexter, where the disease affected the peritoneum. In the other two fatal cases treated by other physicians, neither venesection nor other decided antiphlogistic and febrifuge remedies were resorted to in the early stage of the disease, and their fatal termination was evidently from effusion in the brain.

Whilst it may be claimed and conceded on the one hand, that the treatment of these cases was not only based on correct pathological views, and the most successful that could have been adopted, on the other it is readily admitted, that where the inflammatory character or approximation exists in a less degree, and where there are evidences of an enfeebled state of the solids, and an impoverished and unstimulating condition of the fluids, an opposite course of treatment, consisting of tonics, diaphoretics, antiseptics, &c., would best and most successfully prevent or arrest effusion and seropurulent degeneration, and guard the patient against the fatal effects and results of the disease.

Memphis, October 25, 1844.

REVIEWS.

ART. IV.—*Lectures on the more important Diseases of the Thoracic and Abdominal Viscera; and on Eruptive Fevers, Hæmorrhages, and Dropsies, and on Gout and Rheumatism.* Delivered in the University of Pennsylvania. By N. CHAPMAN, M.D., Professor of the Theory and Practice of Medicine, &c. &c. Philadelphia: Lea & Blanchard. 1844. 8vo. pp. 383 and 448.

The first of these volumes was published some months ago; the other has just been issued from the press. No intimation is given that they are to be followed by others, but it may be presumed that they are the beginning of a series, intended to embrace the course of instruction delivered for so many years, by the veteran author, in the most ancient medical school in our country. Those who heard these lectures will hail their appearance in their present form for the sake of the pleasant reminiscences which they will revive, and of the stores of experience which they have again rendered accessible; and others, who only know the author by his extended fame, will be curious to find on the pages of these volumes evidences of that learning, judgment, and professional skill which have kept him so long at the head of the first of American schools of medicine. We are not about passing a critical sentence on them. Many considerations operate with us to pursue a different course, and although it is not the most summary, we doubt not, it will be the most satisfactory to our readers. We shall make copious extracts from these volumes, selecting such passages as are particularly recommended by their

bearing upon practical medicine. From these a pretty fair estimate may be formed of the style, manner, and doctrines of the lectures.

The lectures embraced in the first volume treat of phthisis pulmonalis, cynanche laryngea, chronic laryngitis, asthma, angina pectoris, gastritis, organic lesions of the stomach, dyspepsia, enteritis, duodenal dyspepsia, chronic fluxes of the bowels, constipation, hepatitis, jaundice, splenitis, and congestion of the spleen. From the first lecture, which covers nearly a hundred pages, we shall make no extracts. Pulmonary consumption, the experienced lecturer remarks, is a disease on the consideration of which he "enters with little satisfaction;" and most writers would join him in the remark. He doubts whether a cure of the disease, when fully established, was ever effected. "Not an instance at least," he adds, "have I seen, and believe, that those who report to the contrary deceive themselves, or the truth is not in them."

An account of cynanche laryngea follows the long discourse on phthisis pulmonalis. Having alluded to the fact that it was of this affection that Washington died, and that it is a disease of advanced rather than of early life, he thus speaks of its pathology:

"Embarrassment as to the pathology of laryngitis is still confessed by many, though really I cannot perceive any peculiar obscurity about it. Enough, at all events, is ascertained, to assure us of its seat being mainly in the upper portion of the windpipe; and that, the action usually partakes of a mixture of spasm, and inflammation is no less apparent. But, in this respect, there is a striking similitude to croup, in the early stage, the most remedial of diseases:—whereas, laryngitis proves directly the reverse! To solve this problem satisfactorily, has perplexed some of the ablest writers. Towards an explanation of it, I will suggest, that much of the peculiarity of the latter affection as well in relation to the symptoms, as the difficulty of cure, proceeds from the position and nature of the phlogosis. That of croup, restricted more especially to the mucous tissue, is adhesive, eventuating usually in the exudation of coagulable lymph on its surface. Expending its force on the contrary in laryngitis, chiefly on

the subcellular membrane, it is of another character, productive of tumefaction, ending sometimes very speedily, and often when protracted, in effusion of serum, or lymph, or the secretion of pus, the first being the most common event. Laryngitis, in a word, is an affection, having an identity with the inflammation of common sore throat, in every leading feature, and is more serious only, from its location in a vital structure. It is very intelligible how either of its ultimate states mentioned, influences the case. By swelling from phlogosis alone, the larynx may be obstructed—and to this condition, the peculiar phenomena of the affection are mostly referable. But it is occasionally otherwise. The cellular which lies under the mucous membrane, becoming distended by an effusion, pressure is made on the rima glottidis, approximating its sides, thus occasioning a similar mechanical interception to the passage of air to the lungs."

After speaking of the use of venesection and emetics as remedies adapted to the first stage of this complaint, he mentions tobacco in the following terms:

"Nothing, however, within my experience, and I have tried divers means, so completely controls these periodical exasperations as a cataplasm of tobacco around the neck, or smoking the article, where the individual is not habituated to its use. The success indeed, of the few experiments I have made with it, leads me to believe, that it may prove a very important therapeutic agent in the more general management of the disease. It occasions very severe and protracted nausea, followed by thorough relaxation, and probably abatement of phlogistic action. Nausea, when long endured, has, indeed, a very decisive control over all such conditions, and particularly when there is a combination of spasm with inflammation. Examples are very numerous and strking to this effect. Colic is one of those instances, and I have seen paronychia, even furunculus, seated in the cellular texture, itself, mitigated or cured by it."

The eminent author is no friend to lobelia. He says:

"Many speak favorably of the lobelia inflata, and some extravagantly—with which I have no experience. From its employment I have forborne, on account of its deleterious properties as exhibited in the administration of other practi-

tioners, which I long ago witnessed. Of these poisonous articles I am terribly afraid, and should really experience some 'compunctious visitings of conscience,' were I to perpetrate death by such hazardous experiments."

The facts adverted to in the following extract are curious, and calculated to excite much interest. Treating of gastritis, the author remarks:

"There are, however, several points which are still left in some obscurity.

"1st. What is the explanation of the fact now admitted, that the most violent gastritis may prevail without its being betrayed by any symptoms whatever? It is probable, that, in most of such instances the stomach, having sustained a loss of its organic sensibility, it feels not its injuries, or, at least, does not manifest them—though on other occasions, the gastric lesion may be masked by the preponderancy of the affection of another organ, and above all the brain. Be this as it may, there is no peculiarity in the occurrence, every other viscus of the body, the lungs, the liver, the spleen, the kidney, the brain, &c., sometimes disguising the severest of even its structural derangements, in the same way.

"2d. To account for the phenomenon, that not the slightest inflammation can be detected in the stomach, when every assurance by symptoms had been given of the existence of gastritis, has proved equally perplexing. Different explanations does it admit. It may be ascribed to the reaction of the blood from the capillaries, by the act of death, as happens in the skin when inflamed by the exanthemata—and also, in the serous tissues, the peritoneum or pleura, of which some striking examples are recorded—or it may be referred to the emptying of the vessels by the copiousness of the effusions. Confirmed in some degree, is the latter hypothesis by the consideration, that in the pestilence to which I have alluded, whenever an excessive excretion of black vomit took place, no phlogosis or congestion was observable. To more common cases of gastritis, there are equally incident sanguineous, serous, and other exhalations, which may be productive of a similar effect. Nor is it improbable, that it sometimes is owing to such an overwhelming impression from the operation of the cause, as to prevent inflammatory action, though otherwise, the organ may fatally suffer, as in the case of prussic

acid, &c., or to the disease of the stomach having entirely ceased by a translation of it to some other part.

"3d. As to the circumstance of the stomach exhibiting the appearances of phlogosis, when it could not possibly prevail, the explication is more easy.

"In most cases of sudden death, and particularly in those I have referred to, it appears sufficiently, that it is occasioned by asphyxia, which state we know, independently of the direct evidence of Bichat, from actual inspection, produces fullness of the capillaries. Why this happens oftener and more prominently in the stomach, as is represented, probably proceeds from its being the *ultimum moriens.* Hallar states that vitality is sensibly retained in it, and the small intestines, when extinct in every other part. Conclusively, however, the late experimentalists have observed, that in opening living animals, for the purpose of physiological investigations, they uniformly perceived the stomach to become a centre of fluxion—its vessles filled, and its surface reddened, or darkened, exactly in proportion to their struggles. No structure, indeed, is so prone to assume these appearances as the alimentary canal. During chymification, the stomach has been proved to be red, or turgescent, from an augmented flow of blood to it—the same condition is presented by the duodenum, when it is engaged in the digestive process, and by those portions of the large bowels, where the fæcal matters accumulate and for a time are detained. The distinction between gastritis and gastric fever, consists mainly in the one being local, and the other so wide a sympathetic extension of the irritation, as to embrace and disorder more or less of the system, and especially the capillaries, which last is the essence of genuine fever It is a fact too interesting not to be pressed on attention, that the tendency to diffusion, in this case, is in the inverse ratio of the intensity of the primary phlogosis."

The learned professor thinks that physicians sometimes give their patients dyspepsia by excessive drugging. His statement of the case, which is as follows, is a strong one:

"Nor can the profession escape the imputation of lending its contribution to this mischief. Called to a case of disease of such obscurity, that no distinct notion can be formed of it, we go on groping in the dark, pouring down drugs empirically or at least tentatively, till the stomach gives way, and its

derangements are added to the pre-existing affection, by which a case is made of greater complexity, and of enhanced difficulty to cure. It is not easy always to avoid this course, from the ignorance or prejudices of mankind. The predominant estimate of the profession, even among the most enlightened people, leads to the delusive supposition that the materia medica has a remedy for every disease, and that the want of success under any given circumstances, is owing to the poverty of resource of the practitioner in attendance. Confidence is soon withdrawn should he intermit his exertions, which perceiving, he too often multiplies his administrations to avoid a dismissal, or to have imposed on him some one of the fraternity who, it is expected will bring forth fresh supplies. The consultation taking place, the new armory of weapons is opened and applied, with only an exasperation of the case. Not satisfied, however, further trials of others are made—there is a repetition of a similar proceeding, and the catastrophe is completed. This, which might by some be suspected as a sketch of fancy, is a faithful and unexaggerated delineation of a reality, I have frequently seen and delpored. Convinced that he was falling a victim to this very practice, the Emperor Hadrian deliberately prepared as an inscription for his tomb:

"'It was the multitude of physicians that killed the Emperor.'"

Of tobacco, as a cause of dyspepsia, the author has the following to say:

"The most common of the causes of the disease, in certain parts of our country, is the enormous consumption of tobacco in the several forms. Certain I am, at least, that a large proportion of the cases of it, which come to me, are thus produced. It is usually very obstinate, and sometimes of a truly melancholy character. Easy as it were to cite numerous instances to this purport, I must be content with a limitation.

"By a member of congress from the West, in the meridian of life, and of a very stout frame, I was sometime since consulted, who told me, that he labored under the greatest physical and moral infirmity, which he was utterly unable to explain, and that, from having been one of the most healthy and fearless of men, he had become, to use his own phrase, 'sick all over and as timid as a girl.' He could not present

even a petition to congress, much less say a word concerning it, though he had long been a practising lawyer, and served much in legislative bodies.

"By any ordinary noise he was startled, or thrown into tremulousness, and was afraid to be alone at night. His appetite and digestion were gone—he had painful sensations at the pit of the stomach, and unrelenting constipated bowels.

"During the narrative of his sufferings his aspect was ghastly, approaching the haggard wildness of mental distemperature. On inquiry, I found, that his consumption of tobacco was almost incredible, by chewing, snuffing, and smoking. Being satisfied that all his misery arose from this poisonous weed, its use was discontinued, and in a few weeks he entirely recovered.

"Distressing as was this case, I have seen others, from the same cause, even more deplorable. Two young men from the country were in succession brought to me for advice, whom I found in a state of insanity very much resembling delirium tremens. Each, I was told, had chewed and smoked tobacco to excess, though perfectly temperate as regarded drink, and which representation proved to be correct. The farther account given me was, that early in life, adopting this bad practice, it grew with their growth. Dyspepsia soon occurred, attended by great derangement of the nervous system, and ultimately the mania I have mentioned. But I have also seen the same condition very speedily induced.

"Five years ago, I was requested to visit a young man at one of the hotels in this city, who had been a resident in it for several weeks. The general aspect of the case so strikingly resembled delirium tremens, that I at once pronounced it to be that affection. But I was assured of his sobriety, and that he had been brought to his present situation by having kept his bed for several days, under the influence of nostalgia, during which period he actually subsisted on tobacco. More recently, I saw quite a youth affected in precisely the same manner, owing, most unquestionably, to the exorbitant use of cigars. Both of these cases were cured chiefly by abstinance from this pernicious practice."

Among the causes of chronic hepatitis Professor Chapman enumerates the excessive use of mercury. His words are—

"Nor can I help thinking, and on no slender grounds, that the extravagant use of mercury by many of our practioners,

in the treatment of autumnal fevers and other diseases, must also be assigned as frequent cause of chronic hepatic affections in some portions of the United States. More than any other article of the Materia Medica, at least, has it the power of exciting the actions of the liver, and it is a law of our nature, that all high excitement is followed by a correspondent degree of debility. From the circumstance of the prodigious employment of calomel in cases to which I have alluded, amounting to several drachms daily, it seems to be no unreasonable supposition, that the hepatic apparatus, thus over-stimulated, should fall into collapse, and, in this condition of exhaustion, torpor to take place in the portal circulation, productive of congestion, eventuating in phlogosis, induration and other derangements. Doubtless in this mode do miasmata and high temperature, separately or unitedly, and the habitual consumption of ardent spirits operate to the same effect. As confirmatory of this view, it is stated, by Dr. Somervail, a most respectable physician, of the South of Virginia, who has practised medicine for nearly half a century, in that section of the country, that till the introduction of mercury, a comparatively modern event there, into the treat- of autumnal diseases, hepatitis was hardly known, and subsequently, it has most widely prevailed. We have also seen, that it is the opinion of Annesley, whose opportunities of witnessing the effect were so ample, that the large use of mercury in the inflammatory stage of acute hepatitis, by an increase of excitement, has a tendency to induce chronic degenerations. That it occasions jaundice, most probably, by deranging the liver, will hereafter appear, as well on the authority of some cases which several years ago occurred to myself, as others, more recently reported, by highly respectable European writers, in support of the conclusion."

A large space in the second of these volumes is given to the consideration of *small pox*, and its prophylactic, vaccination. The author accumulates a large amount of testimony concerning the efficacy of the vaccine virus, and he thus sums up in conclusion:

"It seems, on the whole, to be agreed among those who have had opportunities of judging, that the primitive matter, wherever obtained, proved more active and operated with greater certainty. The local inflammation, as well as the constitutional disorder, was more violent, and a manifest im-

provement exhibited in the vesicle and subsequent pustule, areola, &c. How far this representation is correct I cannot say from my own observations, every attempt which I made with the Bristol matter having been unsuccessful.

"The experiments to which I have alluded are very defective. They show only greater energy in the new virus, leaving the fact of the capability of the impression created by it to protect against small-pox immediately or remotely in absolute doubt. Nor does the mere circumstance of higher intensity of action, local or general, or even of more perfect development of the pustule prove very conclusive. The spurious disease, in many instances, as previously intimated, is remarkably distinguished by the two former particulars, and the occasional fallacy of an unexceptionable local affection, in every respect, as to its commencement, progress, maturity, and declination, is universally admitted. Examples, without number, of the failure of vaccination, and when performed, too, by the most experienced, have occurred with every favorable indication. Much remains to be accomplished in this investigation to the ascertainment of truth."

Measles is the subject of the next lecture and we again extract the closing paragraphs, which relate to points of practical interest.

"Measles is singularly prone to sequelæ or consequent affections, among which are catarrh and pneumonia, opthalmia, aphonia, diarrhœa and some other more chronic derangements. Even when a predisposition only exists, it is exceedingly apt to ripen the tendency into actual disease, and particularly scrofula and phthisis, to which some writers add hepatitis. Nothing, however, very peculiar characterizing the management of the generality of these secondary affections, I shall scarcely notice them further. It may be sufficient to say that the whole of them are to be treated by those remedies the best adapted to subacute or chronic inflammation, which is their true pathological condition. Yet diarrhœa, from the extreme debility often associated with it, is apt to lead to a deception, and which, on this account, may require to be specially designated.

"Too commonly, under such a delusion, a resort is had to the astringent and testaceous preparations, which are both ineffectual and mischievous. The lax, in this case, is the result of inflammation of the mucous coat of the intestines, and

can only be relieved by the measures I have intimated. It was Sydenham who first made known this fact, and subsequent experience has abundantly confirmed it. Bleeding, general or topical, in moderation, with ultimately a blister to the abdomen, and the Dover's powder exhibited at night, with an occasional recurrence to the warm bath, constitute the proper means. Continuing obstinately, however, calomel or the blue pill, in minute doses, with opium or otherwise, becomes necessary, and more especially where the liver is concerned, which sometimes happens.

"It remains to remark, that the black appearance occasionally taking place at the close of the eruption, giving to the disease the title of rubeola nigra, is said to be speedily removed by the internal use of the muriatic acid. But, for the most part, as spontaneously subsiding in a short time, it may be disregarded.

"My wish, in closing the subject, is further to urge the importance of more circumspection in the treatment of measles than it usually receives. We have seen that, in its graver states, how many organs it involves and the serious injuries inflicted. As much, perhaps more to be dreaded, are such lesions than the disease itself. That the affections it entails or developes are the results of imperfect cures, and hence might be obviated by better practice, is my deliberate opinion. Being decidedly inflammatory in its common nature, it obviously exacts the antiphlogistic course in all its details, and especially the loss of blood, to the neglect of which I am disposed to ascribe mainly the mischief so lamentably experienced. Never have I known a case of inflammatory measles to resist adequate bleeding. But our care must not stop here. Caution should be enjoined, even after the disease is seemingly cured, and still more during convalescence, against any exposures to cold, or improper indulgencies, or trespasses of any kind."

Scarlatina is a malady, the mention of which will excite a much deeper interest—it is treated of in the succeeding lecture. Concerning its history the author thus expresses himself:

"Doubtless scarlatina is a disease of modern date. Certain passages have been cited from some of the ancient writings, thought to refer to this, and its affiliated affections, which, on a more careful examination, will not bear such an interpreta-

tion. Its introduction into Europe is commonly traced to an importation from Africa, and is said to have first broken out in Spain, in 1610, whence it spread to Naples, where it prevailed eight years afterwards, as an epidemic, with unexampled violence. Fifty thousand persons are said to have died of it in that city, and half a million in the Neapolitan and adjacent territories, before its cessation.

"By Sydenham, and subsequently Moreton, some account was given of it as prevailing in London in 1689. But so widely do their descriptions differ, that they can hardly be supposed to refer to the same disease, the one representing it to be very mild, and the other as directly the reverse.

"In 1735, it made its appearance in New England, gradually diffusing itself, to a greater or less extent, over this continent. Much confusion, however, exists in the history of the disease, owing to the want of a just discrimination in those by whom it is described, and especially at an early period. No distinction is made in most of these records between it and measles, or even small-pox, except as to gradation of violence; and so lately as the time of Moreton, and even of Watson, the latter of whom wrote about the middle of the last century, the identity of it and measles was maintained. Bateman declares 'that Withering's publication of it in 1778, or rather the second edition of it in 1793, may be considered as the date of the correct diagnosis of the disease.' "

The author believes in the contagiousness of the disease. He says—

"It is questionable at what stage scarlatina acquires this property, prior to or after the eruption. Many believe that it is most active during the desquamation, and at all events, it seems to retain it till this process is completed—the scales being impregnated with the virulent secretion of the skin. Yet the disease cannot be propagated by inoculation with matter procured from this or any other source. Contrary statements have been made, I am aware, though on no good authority. To *fomites* of various kinds it adheres very tenaciously for a long period, with an entire preservation of its efficiency, in proof which we have some striking facts. My friend, the late Dr. Percival, of Dublin, imputes the introduction of scarlatina into that city to a box of toys from London, which had been exposed to the contagion. That the disease was propagated in this way, however, is hardly to be credited,

and the story seems to me very like the famous report of Hildebrand, who assures us, that as soon as he arrived in Padolia, scarlatina broke out and spread most widely, which he ascribes to the retention of contagion in a coat he had worn in the disease a year previously in Vienna. Nevertheless, the long continuance of infection in apartments where the disease has existed, though every purification be practised, is unquestionable. Elliotson, of London, states, in confirmation of it, "that all the children admitted into a particular ward in a hospital under his care, were seized with scarlatina for nearly two years, in consequence of a patient with the disease having been in the ward at that remote period, and this in despite of white-washing and other cleansings.' "

We give his remarks on belladonna as a preventive of the disease, the last of which are highly characteristic of the author:

"As a preventive of scarlatina, the use of belladonna has, of late, attracted some attention. The facts, indeed, bearing on this point, are exceedingly curious, and, coming from respectable sources, ought not to be contemptuously or heedlessly passed over or rejected. Berendt, a physician of Vienna, declares, that, by the use of the article, only fourteen out of one hundred and ninety-five children exposed to the contagion, took the disease, and these had it very mildly. We are further told by Professor Herholdt, of Copenhagen, that he found it to preserve several hundred children, during the prevalence of the disease as an epidemic in that city; and, on a subsequent occasion, when it appeared even more violent, out of nearly an hundred families, all escaped except one, and of this he is doubtful whether they took the medicine. The testimony of Koreft, of Berlin, is scarcely less decisive—that of Godelle, who avers that *he has never seen it to fail*, still more so, and a variety of attestations from other medical men of the continent of Europe, might be adduced. Ten or fifteen drops to children, according to the age, morning and night, of the watery solution of the extract of belladonna, in the proportion of two or three grains to an ounce of water, is the common mode of exhibition.

"To what extent these statements are to be credited, I cannot say from any experience of my own. Distinct from the authority by which they are sustained, when we advert to the powerful impression of the belladonna, we may, on the prin-

ciple of the incompatibility of two actions simultaneously existing, get an explanation of its *modus operandi*, and be not altogether incredulous. That preoccupying the stomach by food, cordial drinks, and even by certain medicines, as opium, or bark particularly, has proved prophylactic as to intermittent and some other diseases, is abundantly demonstrated. Yet, by the assurance of Hahneman, the author of the homœopathic doctrines, which, originating in fraud and imposture, and continued by the most atrocious wickedness, that he was equally successful in the infinitesimal dose of a few drops, daily, of a solution, each drop of which contained no more than the twenty millionth part of a grain of the extract, distrust and even ridicule are cast over the whole affair, and our faith must be withdrawn or suspended till fresh and better evidence is afforded."

Following out our plan of presenting extracts from each lecture, we have next to give one from that which discusses hæmorrhage at great length. As usual, the part selected contains practical suggestions—it relates to the use of emetics in hæmoptysis:

"It remains only to detail some of the results of my experience, in confirmation of the efficacy of the practice which has been suggested, to be illustrated by a few examples.

"In 1807, I was called to a young man of consumptive tendencies, who, for several months, had suffered occasionally from hæmoptysis, and was treated by another physician in part by digitalis. Being suddenly attacked with a copious effusion of blood, he took before my visit an exorbitant dose of the medicine which excited vomiting; the hæmorrhage ceased, he became convalescent, and ultimately recovered. Effects so decided I did not then impute altogether to the act of puking. As often happens from digitalis, an extremely distressing nausea continued for several days, to which I thought it probable the permanent benefit was in a considerable degree owing.

"Encouraged, however, by the cure, and influenced, perhaps, still more by theoretical notions of the nature of hæmorrhage, and of the applicability of the remedy to it, I resolved to subject the practice to a further and fairer trial.

"It was not long before I had an opportunity of doing so, in the instance of a young man from the country, whom I had been attending for several weeks, for pulmonary con-

sumption. Three years previously to my seeing him, he was compelled to abandon the study of the law on account of the frequent recurrence of spitting of blood—and when he came under my care was far advanced in phthisis. One night he was aroused from sleep by a repetition of the hæmorrhage, and on my arrival had lost more than a pint of blood without any diminution of the flow. Common salt, sugar of lead, and such like articles were used in vain; and bleeding, generally or locally, seemed inadmissible, from the debilitated state of the system, and of the pulse especially. Excepting an emetic I was nearly destitute of resource in this emergency; and accordingly twenty grains of ipecacuanha were administered, which soon bringing on vomiting, the effusion was suppressed. On several subsequent occasions the same means proved equally effectual, though ultimately he died of the main disease.

"I had within a month a third case, which afforded me a further opportunity of pursuing the practice, and of confirming my confidence in its efficacy. It was that of a young woman, who, a considerable time before, having suppressed her menses by an exposure to cold, had, ever since, at irregular periods, suffered from hæmoptysis. When I saw her, which was in consultation, the hæmorrhage had already existed for forty-eight hours, the loss of blood very considerable, and she much exhausted. As the usual remedies had been unavailing, I induced Dr. Stewart, with whom I was attending, to try an emetic of ipecacuanha, which put an end to the hæmorrhage, and by propor management, subsequently menstruation returned, and with it a restoration of health.

"More than thirty years have since elapsed, during which lengthened period I have pursued this treatment, and with such success as to have inspired great confidence in it. Like all other means, it will sometimes fail, as might be expected from the diversified nature of the causes and states of the hæmorrhage. But I am persuaded, when properly applied, it will be found to do more than any thing else, and certainly from my own observations, it never produced mischief in the vital or spontaneous extravasations. The emetic I have preferred, and, indeed, only prescribed in these cases is ipecacuanha."

We shall offer longer extracts from the discourse on *purpura hæmorrhagica*—an affection, the causes and pathology

of which are still involved in great obscurity. On the former point our author remarks:

"Not much is satisfactorily determined as to the causes of purpura. The highest authorities, however, seem to be agreed that it is mainly associated with a bad habit of body, acquired by some positive antecedent disease, or by inhabiting low, damp, dark, ill-ventilated dwellings, with the other incidents inseparable from poverty; penurious diet, defective clothing, labor to fatigue and exhaustion—all aggravated by mental anxiety or sharper misery. But no less is it admitted, that the affection occurs, and, perhaps, nearly as often among persons seemingly in sound health, and in the full enjoyment of the comforts and felicities of life. These are the representations of the books, which I am inclined to suspect refer to two states of disease not identical—the one a modification of scurvy, and the other purpura proper—thus indiscriminately confounded. Much have I seen of the former, in the final stages of cholera infantum especially, and only some five or six cases of the latter—every one of which was in a healthy subject, of respectable condition, with no privations or inconveniences of living.

"The principal difficulty in the diagnostication of purpura arises, indeed, from its analogy to these scorbutic bleedings. Contrasting, however, the two affections in their prominent features, we shall perceive sufficient individuality in them without descending into details. Genuine purpura seems to me to be of sudden access—often without an appreciable cause—takes place in sound individuals, and is a singularly pervading and an active hæmorrhage—the dermoid tegument participating to a limited extent only. Extravasations of blood incident to scurvy, are reversely slow in development, uniformly preceded by extreme pravity of system, brought on by obvious causes, are more local and of smaller amount, the blood being also different. Yet, much perplexity existing, the whole history of the case must be surveyed in its rise, progress, and present condition, so as to render a correct decision attainable."

He has not the difficulties which many experience as to the pathology of the disease. His views concerning it are conveyed in the following extract:

"The peculiar obscurity confessed by many in the pathology of purpura, I cannot perceive. That it is not of the nature of scurvy, nor of the petechiæ of fever, is clear. Neither can it be placed among the exanthematous eruptions. As an hæmorrhage it must be considered, varying from others in this respect chiefly, that while the generality of them are assignable to obvious causes, this one comes on in the absence of every thing to explain its production. Coupling this circumstance with the extensiveness of its prevalence over the body, I know not to what else it is referable than the constitutional state, vaguely called the hæmorrhagic diathesis or tendency. Great reason have we to suppose that it is independent of any of the ordinary organic lesions, and proceeds from derangement of innervation, producing the change in the capillaries and in the blood itself, favoring sanguineous effusions, and which condition may be natural or acquired, the latter, sometimes, also permanent or very enduring."

We copy his remarks on the treatment of purpura:

"Called to a case of any activity, venesection should be instantly performed. It is the only decisive remedy. Nor is the amount of blood detracted to be small, or any timidity to deter from a repetition of the operation, where the necessity for it exists. I drew as much as sixty ounces in one case, and in another half this amount, in several successive bleedings, with the most decisive advantage. The course is justified by the state of the circulation, by the appearance of the blood, which is thick and sometimes heavily sized, by the albuminous urine, by the acuteness of pain in the cavities, and by the relief afforded from the hæmorrhage itself when not excessive. Many of the European practitioners, as Parry, McIntosh, &c., give to it their support, though not so intrepidly as I have ventured. But it is not to be supposed that under any other circumstances than stated, and in the extremest emergencies, would I carry it to such an extent. Generally, my bleedings are far more moderate, and especially in an advanced stage, where the loss of blood is ill borne.

"Next in value of the remedies is purging deemed, with the saline articles, and there are facts to render it probable that the sulphate of soda is specially adapted to the disease. Great benefit, however, is derived by cold applications to the surface—either sponging or covering it over with cloths wrung out of water of a moderate temperature. Nay, on one occasion, in consultation with Dr. Meigs, we immersed a girl in a

cold bath, and with such effect that henceforward she speedily recovered. It was on the second day of the attack—the purpura pervaded her skin, and though she had been previously depleted, the pulse was still full and strong, and the surface warm.

"No confidence do I place in the astringents and acids usually appropriated to hæmorrhage, and have little experience of the alkalies and neutral salts recently recommended on the authority of Stephens. But I am disposed to believe that opiates are deserving of attention, more, however, from analogy than any better evidence. Emetics and the spirits of turpentine I would, for the present, place on the same footing.

"In the less active states of this disease, some variation in the treatment is required. Blood-letting, if admissible at all, must be practised cautiously, as well, indeed, as whatever else is calculated to increase debility. Debarred of the former, however, we are nearly destitute of means of any certainty of advantage in an urgent emergency. Those previously enumerated, and commonly employed, have proved nugatory in my hands. My trust would be mainly in the sulphate of soda, the spirits of turpentine, the sulphate of quinine, opiates and wine."

The following extract is hygienic in its character, and will be read with pleasure. The testimony borne in it to temperance by the veteran professor is emphatic and consolatory. He is treating of gout, the connexion of which with particular modes of living is well understood. He says:

"Of the dependence of gout on the habits of living, no stronger proof can probably be supplied than from the annals of this city. When I commenced my professional career, the disease abounded in the higher circles, and then it was the practice to drink punch in the forenoon, to continue it at dinner, or to resort to ardent or malt liquors, followed by a liberal use of diverse wines, closing the evening with substantial suppers and stimulating potations. But, in this respect, within the last thirty years, a signal change has taken place. No punch or distilled spirits, and comparatively little malt liquor, has been consumed, and the custom of supping is nearly extinct. Temperance has superseded debauchery or excess, and gout, thus deprived of its aliment, is fast perishing away. My opportunities have enabled me to ascertain the fact, that so late as the commencement of the present cen-

tury, a hundred cases of the disease existed in this community where one is now to be met with, and, with few exceptions, these are the remnants of other days, serving as memorials of a state of society, of which there are scarcely any other traces to be recognized. Literally is it true, as expressed by May, one of the oldest of the English dramatists:

> "From our tables now, no painful surfeits,
> No fed diseases grow, to strangle nature,
> And suffocate the active brain. No fevers,
> No apoplexies, no palsies, no gouts
> Are here."

"Contemplating this happy reformation, who can forbear to exclaim with the fair poetess—

> "'Tis to thy rules, O temperance! that we owe
> All pleasures which from health and strength can flow;
> Vigor of body, purity of mind,
> Unclouded reason, sentiments refin'd,
> Unmixt, untainted joys, without remorse,
> Th' intemperate sinner's never-failing curse."

"To the causes of gout must, as previously intimated, be added sedentary, indolent, or intensely studious habits.

"It is well known, that in the common orders of life, the disease hardly exists, and infinitely less among the higher classes who pursue occupations of active industry. Neglect of the exercise of walking has particularly an effect, and among other evidence of it, which we learn, is, that while the people of Edinburgh, who, from the location of their trade at Leith, the seaport town, a mile or more distant, usually ride, are very liable to the disease; those of Glasgow, the practice of whom is different, are nearly exempt from it.*

"Not doubting the influence of this custom, to a certain extent, I am still inclined to impute more to a wider difference in the character and habits of the inhabitants, in other respects, of these two cities. Edinburgh is the abode of the opulent, the noble, the learned, and also the refuge of nearly every veteran of Scotland, of the military, naval, or civil service, who returns from the performance of arduous and lengthened duties, in distant and sickly climes, with shattered constitutions, to enjoy at home luxurious ease. The one city

* Scudamore on Gout.

has claims to the highest intellectual society, though voluptuous, and even grossly dissipated, at least it was so in my time, and the other the reverse, or that marked conspicuously by economical prudence and active, stirring, money-making industry. Thus contrasted, can the disparity, as to the relative prevalence of the disease in the two places, be a matter of surprise?"

The following extracts exhibit the author as historian. In the first he is relating the process of *inoculation*, and in the second the origin of *vaccination*. Such passages enliven many of his pages, and amid the dry details of practice must have proved eminently refreshing to his pupils. These extracts afford fair specimens of the style of the author which is not without its peculiarities. Having noticed the slow advances of inoculation in England, he goes on to say:

"The progress of this discovery was, throughout the continent of Europe, still more retarded. Except in Hanover, into which it had very partially crept, no where was it to be recognized. *Narcotized* Germany laid, at the time, prostrate under the stupefaction of despotism, unable to 'shake the poppies from her head,' insensible to improvements, and, perhaps, without the consciousness of possessing those fine intellectual energies she has since displayed. The very attempts to introduce this new practice were met by mounds of popular prejudice, encouraged and fortified by her most eminent medical men, De Haen, Van Swieten, &c.

"Even in France, with the illumination of her literature, science, and philosophy, it had to encounter, for a season, an irresistible opposition. Condemned, *ex cathedra*, by the faculty of medicine at Paris, it remained slighted for many years. Neither appeals to reason nor common sense, nor the weight of cumulative facts, had any effect. Finally, however, Voltaire, returning from England, whither he had been, took the subject in hand, and, by his representations of the immense advantage of the new practice, which he had there witnessed, and above all, as the only preservative of female beauty against the most hideous deformities, enlisted the ladies of the court in its behalf, and henceforward inoculation became quite the vogue in the higher circles, whence it spread, as other fashions, among the people. To the influence of this extraordinary man, operating on the vanity of women, does it appear

that we are mainly to assign the just appreciation of one of the greatest boons ever conferred on humanity—such being the mysterious modes often adopted by Providence for the revelation or dispensation of infinite goodness! Means, however, were still wanting to execute the plan which had been devised of extending this blessing to the poor, and these were supplied on the coming into power of Turgot, the wise, the liberal, the benificent minister of the French treasury. Enough, perhaps, has been said to show that this, in common with every other improvement, wheresoever it may emanate, was eagerly received, and skilfully pursued by our own, in the proper sense of the term, truly enlightened country, whose mind has never been perverted by vulgar prejudice, or weakened by fearful superstition, or its determinations thwarted by aristocratic influence, or the power of antiquated corporations, or that of Government itself, so perniciously felt in the Old World."

The history of Jenner's immortal discovery is thus pleasantly mixed up with anecdote, and we give it without any fear that it will prove tedious, although the extract is a long one:

"In 1768, while Jenner was a student of medicine, residing in Gloucestershire, he heard of the prevalence of an affection on the udder of cows, of a pustular nature, which occasionally infecting the hands of those who milked them, produced a correspondent affection, proving a preventive of small-pox, as well in the natural way as by inoculation.*

Deeply impressed with the value of the intelligence he had collected, Jenner repaired to London, to prosecute his studies under the auspices of John Hunter. During the period of their connection, frequent conversations were held between them regarding the cow-pox and its reputed properties. Engrossed, however, with other occupations, the preceptor was

*Not uninteresting can it be here to mention, that I have been told by Dr. Neil, of this city, that much about the same period, and certainly without any information from abroad, his father, who practised physic on the Eastern Shore of Maryland, was in possession of essentially similar facts. It has also been rendered probable, by M. Hussen, that a certain M. Robant, Protestant minister at Montpelier, in France, had so early as 1781, made some verbal communications to several persons, indicating considerable knowledge of the subject.

without leisure, or did not deem the matter worthy of his immediate attention. Having returned home, after a considerable interval, Jenner resumed his favorite investigation, which he steadily pursued till the consummation of his mighty and marvellous discovery. This took place on the 14th of May, 1796, which is held to be the birth-day of vaccination. It was on that day, says his biographer, Barron, 'that matter was taken from the hand of Sarah Neimes, who had been infected by her mother's cows, and inserted by two superficial incisions into the arms of James Phipps, a healthy boy of about eight years old. He went through the disease apparently in a regular and satisfactory manner. But the most agitating part of the inquiry remained to be performed. It was needful to ascertain whether he was secure from the contagion of small-pox. This point, so full of anxiety to Jenner, was fairly put to issue on the 1st of the following July, when inoculation with variolous matter, immediately taken from a pustule, was practised without any infection.' But though, having thus experimentally determined the fundamental principle of his discovery, he still sedulously proceeded to perfect it by the investigation of details, or of collateral matters, calculated to illustrate and confirm it.

"The points which he thought he had ultimately demonstrated were, that the cow-pox was readily imparted to the human species by inoculation, to be passed from individual to individual, without deterioration or change, giving an immunity against small-pox—it being itself a very mild affection, entailing no pernicious consequences, and utterly destitute of the quality of infection through the medium of the atmosphere, or of communication in any other mode than the one stated.

"Entirely satisfied of the accuracy of his conclusions, he resolved to lay them before the public through the transactions of the Royal Society of London. That learned body, however, placed such slender confidence in his representations, so extraordinary did they appear, that his paper was returned, with a friendly admonition to withhold it from the press, lest it should injure his reputation. Happily, the advice was not followed; and in 1798, twenty years after the commencement of his inquiries, he published, in a small pamphlet, in a style the most modest, his great discovery. From this period, vaccination came progressively to be diffused throughout the civilized world, meeting, in different countries, various degrees of resistance, according to the extent of prejudice against it, or the inefficiency of exertion in its behalf.

"More at home, however, than elsewhere, was it assailed by vulgar or illiberal abuse, pretty much in the mode previously pursued in regard to inoculation. Conspicuous among the anti-vaccinists was Mosely, advantageously known by his writings on tropical diseases, whose hostility amounted to fanaticism. Determined in his opposition from the first, to the practice, he ultimately issued a small tract upon the subject, in which, amidst other extravagant absurdities, he ventured the prediction that, 'by the influence of bestial humors, imparted in the process, the 'human form divine' would become degenerate, and another brood of Minotaurs produced.'

'Semibovemque virum, semivirumque bovem.'

"Mosely had occupied a considerable position in the professional and social relations of London, and his perpetration of such folly created much surprise. But, as I have heard, he was actually insane at the time. From the patronage of the Duke of York, he had lavished on him the practice of the court, and higher circles, with the lucrative sinecure of physician to the Chelsea Hospital. Thus, as he was basking in the sunshine of prosperity, an incident occurred to blight his fortunes. The Duke having a cold, sent for Mosely to consult him on the safety of his going out to review a body of troops lately returned from the Egyptian expedition, who protested against his leaving the house.

'The dawn was overcast, the morning lower'd, and
Heavily in clouds brought on the day.'

"Nothing, however, could restrain the ardor of the hero, and while on the *deluged* field, he broke out with measles, and became very ill. The physician was charged with criminal ignorance, for not having promptly discerned the nature of the inchoative disease that jeoparded the life of his royal highness, and was instantly punished by deprivation of all his privileges, honors, and appointments. Calamities so heavy, and unexpected, were insupportable. His mind gradually gave way under the pressure of grief and mortification, and, while in a state of hallucination, this unhappy production escaped from it. Not long afterwards, he died in poverty, obscurity, and confirmed madness:

> ——————— 'O, how wretched
> Is that poor man that hangs on princes' favors!
> There is, betwixt that smile we would aspire to,
> That sweet aspect of princes, and their ruin,
> More pangs and fears than wars or women have,
> And when he falls, he falls like Lucifer,
> Never to hope again.'*

"But, though subjected to this and some other annoyances proceeding from individuals of greater responsibility, actuated by ignorance, envy, or malice, Jenner was encouraged and sustained by the applauses of the better part of his profession, the countenance of his sovereign, the liberal rewards of Parliament, and the gratitude of mankind. Many of the most eminent personages of the period courted his personal acquaintance, and nearly every learned association enrolled him among its members, or bestowed on him its honors. Not to swell the catalogue of his titles, he was elected into the Royal Society of London, the National Institute of France, and the American Philosophical Society; and received the degree of Doctor of Laws from Oxford, and one or more of our own universities. Both hemispheres united in rendering him its grateful homage.

"Napoleon himself, at the height of his glory, bowed to the supremacy of his merits, in an offering of a tribute to them deserving of preservation, from its moral beauty. It happened that, among the Englishmen detained at that moment in France, in retaliation of an act of hostility of the British Government, which had engendered the most envenomed feelings, there was a nobleman of great distinction, for whose release very strenuous efforts had unavailingly been made. As a member of the National Institute, it was thought that Jenner, from his powerful influence, might, through that body, effect the object, and, accordingly, by request, he made the application. The Institute, however, was impotent without the emperor's approbation, and, therefore, addressed him on

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* The above anecdote I give on the authority of a person entitled to confidence. Part of the statement I know to be true. In the fall of 1801, I was on Wimbleton Common, near London, on the occasion of the review, saw the duke exposed to a heavy rain for several hours, read the daily bulletins of his illness, and it was generally said about town that Mosely had been dismissed and degraded, for the very reasons mentioned. The anecdote is communicated to vindicate, not to insult, the memory of a man of no common merit.

the subject, whose memorable reply was: 'That, which I would not grant to the prayer of embodied Europe besides, I will concede to the wishes of the most illustrious benefactor of humanity. It shall be done.' " Y.

ART. V.—*Ethics of Medicine: An Anniversary Address delivered the 3d of April, 1844, before the Medico-Chirurgical Society of Louisiana.* By THOMAS M. LOGAN, M.D. Published by the Society. New Orleans, 1844.

The Claims of Religion on Medical Men: A Discourse, delivered in the Tenth Presbyterian Church, Philadelphia, on Sunday evening, November 24th, 1844. By B. A. BOARDMAN, Pastor of the Church. Philadelphia, 1844.

In a nation, the constitution and laws determine the genius of the government—the officers fix the character of its administration. If either be bad, the good which the other would exert, is countervailed; if *both* abound in imperfections, the condition of the governed is unfortunate; when both are excellent, the people are prosperous and happy. If we contemplate our profession in similitude with civil government, we find principles and practitioners, both of which are imperfect—both should be improved. Human nature has within itself many guaranties for the active cultivation of the former; and experience proves it not to be neglected. Love of gain and glory, curiosity and thirst for knowledge, have, and ever will stand responsible for a diligent attention to medicine as a science, or rather a group of sciences. But these principles of our nature, so far from pomoting the amelioration of character, which should prevail among those who practise the profession, too often arrest it. Thus avarice and ambition generate selfishness; and even philosophical curiosity, indulged as a passion, may draw the soul's blood to itself, and leave benevolence, generosity, and courtesy, to perish for want of that nutrition which their exercise only can supply. A full acquaintance with the principles of the profession, makes a man

of science, but not a worthy physician. To become such, his moral sentiments must be developed not less than his intellectual faculties.

Unfortunately, our systems of education if not *limited* to the latter, direct their power chiefly upon it, and leave the former to grow up under whatever accidental influences may happily fall upon the student during the years of his pupilage and probation. In examinations for a degree, what medical institution ever thinks of extending its inquiries into the moral *character* of its candidates—how many even recognize, practically, the *reputation* of those whom they are about to usher into society, as its guardians of health and life? And, still, why should not his moral and social instincts, principles, and habits, be taken into account, when he asks admission into the ranks of a profession, the duties of which cannot be exercised acceptably to his brethren or society, if they are bad? It is expected, that before a young man enters a medical school, he should have made certain attainments in literature, not so much because he could not study science without them, as because their absence when he became a physician, would bring odium on the profession. But why should it not be equally, nay, still more, expected, that he should understand the principles of moral, social, and professional duty; and admit their obligation: his life up to that time having afforded evidence of their power?

But what are these principles? Where can they be found? We answer, unhesitatingly, in the BIBLE; which not only presents the whole, but offers them in connexion with all the sanctions of *both* moral philosophy and christianity. Does the former rest its obligations of duty on benevolence? The latter resolves every duty of man to man into that principle. Does it refer to a natural sentiment of justice? The latter every where commands the practice of that virtue. Does it rest upon utility? Christianity declares that Godliness is *profitable* for this life, not less than the life to come. In fact, whatever motives moral philosophy may have suggested for a life of rectitude, kind feeling, and gentle manners, the Bible re-

cognizes the same; with the superadded obligation of a divine injunction. Thus it covers the whole ground of human duty, and recognizes every motive, which natural theology and moral philosophy admit, while it every where presents additional motives, which it declares to be revelations from God. In commending its study, we are not under the necessity of relying on the latter. Depending, at this moment, on the former alone, we may affirm, that the scriptures are the best book of moral philosophy, which the world has yet known; and that if every other were annihilated, nothing would be lost to the morality of mankind—no admissible motive left unrecognized, no personal duty unindicated, no maxim of social intercourse unsupplied. In what do all the disquisitions of moral philosophy terminate, but the principles and precepts of the Bible? What do they establish but the wisdom, merely human if you will, of a book far older than the most ancient among them? If it be a necessary part of education, to learn our duties towards those around us, and the *whole* are found scattered through the Bible, why should it not be studied? Why not derive our knowledge from a book whose antiquity, diversified authorship, solemnity of style, and consecrated name, are so well fitted to impress its precepts on the young heart?

It is a great error, that the study of the Bible is useless, unless it should eventuate in a conviction of its divine authorship. A faith in its wisdom, as a book of mere human origin, such a faith as its careful study will never fail to inspire, may exert on the character of the individual, a most genial influence. Under this view of its power, it is, that we recommend it to all who desire to cultivate their moral sentiments, their social feelings, and their manners. If *it* should not succeed, the case is hopeless. The deductions of moral philosophy will in vain essay to mould the heart, which has resisted the sublime and simple precepts of the Bible.

But there are higher and holier considerations to which we must now ascend. The Bible declares itself a book of reve-

lation on the duty and destiny of man. If this be a fact, its profound and diligent study must be the duty of every human being. But here steps in scepticism, and pronounces that as it does not *know* that such was its origin, it feels no obligation to study it. Now let us suppose, that when Dr. Jenner published to the world, that cow-pox was a preventive of small-pox, and would preserve the lives of the vaccinated, the profession at large had cherished the same scepticism, and refused to read his book, would they have been held guiltless? Would not the lives of the victims of small-pox have been required at their hands? Do we not carefully examine every new system of medicine, before we condemn it? Is it not according to the plainest dictates of common sense, that we should do so? What is the firm fabric of modern medicine, but the combined materials, which a critical examination of all the books which have been written for more than 2000 years, has extracted from so many masses of error, and perpetuated to the present time? Why then apply a different rule to the Bible? Why condemn it without examination? Manifestly because it professes to contain a revelation. Now we would ask the sceptic, whether he who made man, *could* not send him a revelation? Where is the warrant for denying that he might? Is it unreasonable? Reason certainly declares that *if* man were made, it would be a less exertion of power, to reveal to him certain maxims of duty towards his fellow man and his Creator. If a revelation, then, be possible, and the conclusion seems inevitable, it could not become known to the world, unless it received attention—were read and the evidences of its reality examined. But this is precisely what the majority of our profession have not done. Their infidelity is most unphilosophical, because they have concluded without examination:—in violation of critical justice, for they have condemned without a hearing. If their disbelief should be correct, in the absolute, it is not *logically* correct, because not the result of a careful and candid investigation. To such an investigation we would call them. As

scholars and philosophers, they should be ashamed of its omission; ashamed that they have concluded before they have collected and compared the testimony, absolutely necessary to a correct decision; before they have subjected all the facts, to the test of that logic on which they rely for the establishment of professional truth. When they have done this, should they not acquire a Christian faith, they will at least substitute a philosophical infidelity for the scepticism of ignorance. Into that cheerless region we should not have occasion to follow many of them, for its inhabitants are few, indeed, compared with those who wander in the benighted land of ignorance and doubt. We have seldom met with a single physician, who had earned citizenship in that frozen zone; while the number of the latter, although reduced from what it once was, is still sufficient to show, that multitudes repudiate the Bible, without having studied its doctrines or the evidences of its heavenly origin. It is to such, that we address this argument, and commend the discourses now before us.

That of Dr. Logan was delivered in a society composed of many popular, and some distinguished physicians of New Orleans. It is as creditable to their moral taste, that they should have ordered its publication, as it is to the fearless piety of the author, that he should have stood forth as the champion of the Bible, in a city where so many are *supposed* to neglect its study—so few to govern themselves by its divine precepts; where a code of honor is substituted for that of religion, and a *fighting* gentleman aspires to higher social rank than a *Christian* gentleman. That we may not be charged with exaggeration on this point, we present the testimony of our author. After announcing the subject of his address, he adds—

"I am especially urged to this theme at such a time and place, from the lamentable fact, that notwithstanding there are many practitioners in our country eminent for talents, illustrious for learning, and distinguished for skill, yet, I have reason to apprehend, too many are numbered among our

ranks, who, by their reckless disregard and defiance of morals and religion, are ruining our influence, and bringing discredit upon the whole profession. Alas! how many are there, even in this city of chivalry and high-toned honor, who have no higher ideas of the dignity and responsibility of their vocation, than that it is a mere trade, a scuffle to gain popularity and business, and to pocket the dollars and cents!"

Our author proceeds to speak of the physical and spiritual nature of man, and justly insists that he who is ignorant of the latter, must necessarily be unqualified to combat many of the ills which beset the former. By a parity of reasoning, he would require in the priest a knowledge of the corporeal system. Indeed, in another part of his discourse, he intimates, that some advantages would attend the union of the two offices in the same individual; but in this suggestion we understand him to mean nothing more, than that medicine and theology have a natural and inseparable connection. On this point we shall quote his own just and impressive language:

"But let me be fairly understood on this point. Far, very far, am I from claiming for our science with ancient theosophy, a derivation from direct inspiration, nor with a sacrilegious ambition do I dare aspire to co-ordinate powers with the Christian evangelist. No. The period has rolled away into the dark distance of ages, when the then called 'divine art' of medicine was the appanage of a superstitious religion—when cooped up in catagories, it was doled out in eleemosynary morcels, by a corrupt priesthood, and when it was allied to the wildest metaphysics. No! Thank heaven! our art long since escaped from the dungeons of superstition—separated from the jargon of the schools—and now delivered from the chains of authority, by that true method of philosophising, which the genius of Bacon established; begins to feel the fecundating influence of the inductive logic. A just philosophy has shown, that man is no longer an isolated, but a related being; and in his dependencies and connections with other beings, and with the great system of nature, his affinities have been traced. And although he is the most complete and perfect type of organization, proceeding from the hand of the Creator, 'the very paragon of animals,' yet he must be studied by the same methods of investigation, as the other

objects, even inanimate bodies of the universe. But there are other relations, also, in which the nature of man must be studied. He has a spiritual, as well as an animal existence. His frail and vulnerable body indicates his human nature, while his aspiring mind bears an immortal impress; and such is the wonderful sympathy that exists between these elements of being—this dual life, and so intimate is the vital connection, as we have before said, existing between them, that it is almost impossible to study the laws of the one, without becoming acquainted with the operations of the other. It is in this view of man's compound existence—this union of spirit and matter; the one, capable of immortality—of ever-living, ever blooming virtue; the other, heir of a life so brief, that its ephemeral period has been beautifully compared, by a fair writer,* to things most evanescent and mutable in nature: 'a vapor floating in the summer's sky—a little flower blooming in the morning, and in the evening withered and faded away—a dew-drop sparkling on a trembling leaf;'—it is in this view that the functions of the priest and the physician become blended—that their offices and duties become subsidiary to each other—that a oneness obtains between them. For, surely, if it falls to the province of our science to extend its salutary aid, 'to chase the ignorant fumes that mantle clearer reason,' it becomes the conscientious duty of the physician, not only to investigate all the mental phenomena and analyze their operations, but also to resort to the synthesis of all knowledge, psychical or physical, which may teach him to apply the proper therapeucy. And if he adopt the metaphysics and ethics of the Bible, which is universally acknowledged to be the simplest, clearest, and most luminous of all treatises on the philosophy, the government and destinies of man, how admirably would he approximate that sublimest ideal of human perfectibility—higher than which, human imagination never yet has soared—revealed in Him, who, while on earth, went about curing all manner of diseases, as well of mind as of body."

Our limits forbid additional extracts. In taking leave of our author, we cannot do less than ardently wish him success, in his efforts to awaken among his brethren a livelier sense of

* Margaret Mercer, authoress of Popular Lectures on Ethics, &c. Petersburg, 1841.

the importance of moral and religious cultivation. To his concluding sentence we give a heartfelt response. "Let us," says he, "in the vivid remembrance of our transitory existence, and in the practical application of those principles and precepts we have just been discussing, banish the rivalries of self love and of interest in controverted points, and never forget that we are in the presence of one who is the Arbiter of all truth—the Source of all light—the great Moral Physician of a disordered world!"

We turn from the commercial capital of the Southwest, to the medical metropolis of the East. Mr. Boardman's Sermon was delivered to the united classes of the University of Pennsylvania and the Jefferson Medical College, and published at their request. We are pleased to see at the head of each committee, the name of one of the most distinguished professors of its school.* We are also gratified at finding institutions, long and violently opposed to each other, at last concurring in a work of peace and piety. May they continue in this labor of love, and may their example be extensively imitated, until every school in the Union shall come to regard the religious instruction of its pupils as worthy of countenance. The most effective discipline of young men is the religious. Its fruits are industry, temperance, order, peace. It stands directly opposed to the prevalent vices of students, assembled in our cities from all parts of the country. It arrays itself against broils, duels, and the love of dissipated pleasures. It contributes to secure to every student, the full amount of his time and money, while it guaranties that tranquillity of mind, that exemption from the perturbations of appetite and passion, which is indispensable to calm and successful investigation.

But Mr. Boardman does not limit himself to transient benefits of this kind. He boldly affirms the duty of religious cultivation, not only for students but physicians—not merely for time but eternity. He reminds his hearers of their ruined

* Dr. N. Chapman and Dr. J. K. Mitchell.

moral condition, and calls upon them to drink at the only fountain of spiritual health and immortality—the *Bible.* He charges on them a neglect of that divine book, and refers, pointedly, to the prevalence of infidelity in the medical profession; which, however, he admits was greater in past times than at present. He then proceeds to enumerate the causes of this infidelity, and wishing to present our readers with a specimen of his sermon, we shall extract the portion which contains his views on this branch of his discourse:

"It has, however, been admitted, that there are facts in the earlier annals of the science, which *seem* to countenance the charge under consideration, that medical studies involve a lurking tendency to infidelity. I use the expression 'seem,' because in so far as the science itself is concerned, the imputation *must* be groundless. The principles of every science were established by the Divine Author of Christianity, and cannot, therefore, conflict with any of its doctrines or requirements. The legitimate tendency of all scientific investigations, is to lead the mind up to the Great First Cause, and to predispose it to bow to His mandates, whenever and howsoever they may be communicated. But that these studies are often perverted from their appropriate end, no one can deny. And this has perhaps happened as frequently in medicine as in any other science. Various reasons have been assigned for this fact.

"1. There is the absorbing nature of the demands the profession makes upon the time and attention of its votaries, who are thereby deprived (as they suppose) of the opportunity for examining the subject of religion, and indeed rendered averse to it.

"2. Successful scientific researches are apt, unless regulated by religious considerations, to inspire men with inflated views of the sufficiency of human reason on *all* subjects; and thus, from questioning the necessity, they may easily come to deny the fact of a Divine revelation.

"3. The habit of reasoning from induction and analogy which belongs to every scientific physician, may unfit them, in a measure, for examining with impartiality the argument from miracles which constitutes so material a portion of the external evidences of Christianity.*

* See Gisborne on Men, vol. ii., 194.

"4. I say it with regret, but nothing has impressed my own mind more unpleasantly, in the little attention I have given to medical works, than the want of a distinct recognition of the Creator's power and agency, on occasions when it would not only be natural for the writer to refer to the Deity, but even when the idea was evidently in his own mind, and could not be suppressed without an effort. 'The student of medicine,' says an ingenious writer, 'is often called on to bring his gift and deposit it, like the Athenian, on the altar of an 'unknown god.' A cloudy image, entitled 'nature,' is raised in the mind, to which high attributes of power, wisdom, and goodness, are often ascribed.'* He might have added that the tendency of this habit, if persisted in, must be, in minds peculiarly constituted, to create a vague impression which may ultimately grow into a conviction, that this obscure divinity, 'nature,' is really the only Deity.

"5. Physicians are conversant with those scenes of suffering which, above any others, appeal to our sympathies. These scenes do not necessarily blunt their humane feelings, but they can hardly fail of producing a decisive effect, for good or evil, upon their moral sensibilities. It may be worthy of consideration, whether familiarity with such spectacles has not sometimes assisted in fortifying them against the requisitions of Christianity, and even hastening them into infidelity.

"6. The exposure of young men, while in training for the profession, to the temptations of large cities, and the consequent formation of dissolute habits, has, no doubt, been a hotbed of skepticism.

"7. The neglect of divine worship on the Sabbath, and of the other means of grace, has, it is to be feared, contributed in no small degree to foster infidelity among physicians. I shall enter into no argument on this point. It will probably be conceded, on all hands, that physicians frequently absent themselves from the sanctuay when no call of necessity or mercy pleads for it; that the occasional neglect of the house of God easily glides into a habit; and that this habit tends, by a natural process, to impair all suitable sense of religion, and to generate infidelity.

"Such are some of the grounds on which the prevalence of skepticism among medical men has been explained. They show that however guiltless the science itself may be of the

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* "Is Medical Science favorable to Skepticism?" An essay, by James W. Dale, M. D.

infidel tendency ascribed to it, there is real danger in the path of the physician. They certainly furnish a strong argument in favor of an early and persevering attention to the claims of religion, on the part of the profession. This would not only secure them from the ruinous illusions of infidelity, but furnish a triumphant vindication of their art from the stigma which has been unjustly affixed to it."

While we concur with our reverend author in these causes, we are constrained to express the belief, that ignorance of the Bible is a greater cause of skepticism than the whole; for its diligent study would, in fact, obviate several of them; and without such study, a faith in its divine authorship is not likely to be established, in minds accustomed to read and think.

The remainder of his interesting sermon is composed chiefly of an inquiry into the irritations, anxieties and troubles of medical men, which religion would either palliate or remove; into the increased usefulness to the world, of him who adds piety to science; and of solemn exhortations to personal religion, as a preparation for death. May they animate all who heard them, "to do justice, love mercy, and walk humbly with God."

In conclusion, we cannot refrain from asking—what would be the character of the profession, if all its members lived under this divine law of justice and mercy to all around them—of reverence and humility before their Heavenly Father? Bright and beautiful, indeed, would it then appear to all the world! Beloved, honored, gratefully remembered by man—approved by God himself. Cold-blooded derelictions of duty to the sick would then be replaced by early, anxious, and faithful attention—candor would supplant concealment and deception—courtesy and kind words, warm from the heart, would solace, sustain, and cheer the afflicted. Physicians would then confide in each other, where they now watch with jealousy. Unavoidable collisions would be amicably adjusted, and each would act towards every other as he would be dealt with by them. The medical man would not, then, heartlessly withdraw when the man of God was about

to offer up the prayer of faith and hope, over the expiring sinner; but, uniting in the last sad and solemn duty which humanity can perform, would, by his very presence, mitigate the pangs which his skill could not avert, and fill the soul of the dying man with emotions of gratitude.

D.

ART. VI.—*The Cyclopædia of Practical Medicine.* Edited by JOHN FORBES, M.D., F.R.S., ALEXANDER TWEEDIE, M.D., F.R.S., and JOHN CONOLLY, M.D. Revised, with additions, by ROBLEY DUNGLISON, M.D. Philadelphia. Lea & Blanchard. 1844.

Since our December number was issued we have received parts XVI., XVII., XVIII., and XIX., of this elaborate work, which is progressing with perfect regularity towards its completion.

At a season when pneumonia is one of our prevailing diseases, the following extract from the Cyclopædia will be read with interest:

"*Application of the Treatment.*—We have only to point out here the manner in which the several remedies which we have described may be combined in the treatment of individual cases. Where the case is at all severe, the treatment with tartar-emetic, or with calomel and opium, should be commenced immediately after the first bleeding, and continued uninterruptedly until an impression shall have been produced on the disease. It is not safe, however, with either of these remedies to lay aside blood-letting; if sensible relief does not ensue in the course of five or six hours after the first full bleeding, this measure must be repeated as before recommended. In the most acute and inflammatory cases, uncomplicated with gastric disease, we have sometimes combined the mercurial with the antimonial treatment, by giving a pill containing from six to ten grains of calomel, with from half a grain to a grain and a half of opium every four or six hours, and the tartar-emetic draught before prescribed, in the middle of that interval; and where the tolerance is established soon, the effect of this treatment is very powerful. If the bowels are too much acted on, the hydrargyrum cum cretâ in double

quantity may be substituted for the calomel. When an amelioration takes place in the symptoms, the mercury may be omitted, and the case left to the tartar-emetic, and whatever depletion or counter-irritation may be required. If the attack of pneumonia is very recent, and accompanied with a sharp stitch in the side, or catch in the breathing, a full dose of opium immediately after a large bleeding, as recommended by Dr. Armstrong, will sometimes be found sufficient to cut short the disease. This plan can only be adopted where the bleeding has been so copious as to produce a great and real impression on the heart's action, almost, if not quite, amounting to syncope. The dose of opium should be large; three or four grains of the aqueous extract, or if the pain and tendency to reaction are urgent, from 30 to 60 minims of the liquor opii sed., are the preparations to which we give the preference. Even in this case we think it advisable to give from six to twelve grains of calomel, or from ten to twenty grains of blue pill, with, or soon after, the opium; the mercury does not interfere with the sedative operation of the latter, and by preserving the balance of the secretions, it prevents those functional derangements which sometimes follow the use of opium even in this way. If the disease has in any degree passed into the second stage, and even if the first has lasted more than twenty-four hours, there can be little hope of stifling it with opium, and we must then resort to the alterative powers of tartar-emetic or mercury, with whatever blood-letting the case may bear. Blisters can seldom with advantage be resorted to, until all fulness and hardness of the pulse and heat of skin have subsided; and either of these symptoms, or even the continuance of a fixed pain, would counter-indicate the use of the decoction of senega, or any of the mild tonics which prove useful in the decline of the inflammation.

"If, from the copious expectoration of pus and the physical signs of a cavity in the lungs, it is probable that an abscess has been formed, it may be necessary to support the strength by a stronger tonic, as the sulphate of quinine or bark with a mineral acid; but the expediency of this must depend on a complete predominance of the symptoms of weakness over those of inflammation. In case of gangrene, some of the medicines of a supposed antiseptic power may be given. Drs. Graves and Stokes, in a case of this kind, gave the chloride of lime in the dose of three grains with one of opium three times a day, with the effect of removing the fetor from the expectoration, and for a time improving the symptioms.

We have seen the same medicine in solution apparently produce the same result; but we cannot expect much from the operation of such agents. The principal object in case of gangrene is to support the general strength, and counteract the noxious influence of the dead matter, until it can be thrown off from the system."

ART. VII.—*Lectures on the Theory and Practice of Physic.* By JOHN BELL, M.D., Fellow of the College of Physicians of Philadelphia; Corresponding Secretary of the Philadelphia Medical College; Member of the American Philosophical Society, and of the Georgofili Society of Florence, etc., etc.; and by WILLIAM STOKES, M.D., Lecturer at the Medical School, Park Street, Dublin; Physician to the Meath Hospital, etc., etc. Third edition, enlarged and improved. In two volumes. Philadelphia. Ed. Barrington & Geo. D. Haswell. 1845. 8vo. p.p. 1518.

Reserving for our next number a more extended notice of these valuable Lectures, we take great pleasure in thus early introducing this new edition to our readers. The joint labors of Dr. Bell and Dr. Stokes have been eminently successful. Few medical works issued from the American press, within the same period, have had more currency, or been more highly approved by the profession. This edition of the Lectures is marked by substantial improvements, which will enhance the value of the work to the practitioner. Dr. Bell is just the man to keep his book up to the present state of medical science, and his readers have the comfortable assurance that they have before them all the light of recent discovery. Mr. James Maxwell has just received this work.

Y.

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Lithotomy.—From an interesting paper on the *Bilateral* Operation of Lithotomy, in the American Journal of the Medical Sciences, (for October,) by Professor Warren, we make the following extracts:

Urinary Calculi rare in Boston.—The operation of lithotomy is so rare in this place, that it would demand a longer period than the life of one practitioner to settle the question, in this part of the country, as to the best mode of operating. In the course of forty years, I have been called on to perform all the operations of lithotomy which have been done, during that period, in the city of Boston. The whole number has not exceeded twenty-five, inclusive of lithotrity cases, in a population which, during the period mentioned, has increased from about 26,000 to more than 100,000. Of the twenty-five persons thus operated on, not more than three were natives of Boston or its vicinity; the others came from the remote parts of Massachusetts, from New Hampshire, from a calcareous district in Maine, and from Nova Scotia. Perhaps it may be proper to add, that, of the cases I have operated on, two have died; one of these was a case of very unfavorable nature, the patient being of gross constitution, bad health, and having a very large stone adherent to the anterior part of the bladder; he died of suppuration in the pelvis. The other was the case of a patient who was doing perfectly well, but, on the fifth day from the operation, he indulged himself in eating heartily; he died of general peritonitis.

The bilateral operation, which Dupuytren considered more eligible than the lateral, in the estimation of Professor Warren, has the following advantages:

First, that the parts cut are more simple in structure than those concerned in the lateral operation; the nerves and the blood-vessels are necessarily smaller as they approach the median line.

Secondly, the pain and hemorrhage are, consequently, less than in the lateral operation.

Thirdly, the access to the membranous part of the urethra, and to the bladder is more direct.

Fourthly, the prostate gland being more completely exposed, may be divided with more precision.

Fifthly, the opening into the bladder may be double the size of that made in the lateral operation, without increasing the danger of cutting the vesical plexus of veins, the prostatic fascia, or the internal pudic artery.

Sixthly, the danger of subsequent inflammation is decidedly less.

The principal objection to this operation is the risk of wounding the rectum. This is certainly very considerable; but by drawing the staff with the urethra and prostate gland, towards the symphysis pubis, and with the finger of the left hand upon or in the rectum, drawing that intestine in the direction of the os sacrum, this danger will be found less, perhaps, than in the lateral operation. It may be objected, that in the present case, the wound was longer in healing than it frequently is after the lateral operation. The reason of this, however, is to be found, not in the form and direction of the wound, or in the parts implicated, but in the morbid state of these parts, and general condition of the patient, previous to the operation.

Decomposition of Tinct. Opii by Ammonia.—It is of great importance for prescribers to remember that the addition of ammonia, either as carbonate or spiritus ammon. aromaticus, to mixtures containing tincture of opium or any salt of morphia, will, after some time, say twenty-four hours, precipitate the morphia in a crystalline form; so that if a mixture is made a day or two before it is taken, the patient may get several doses of morphia concentrated in the last portion left

in the bottle, and fatal consequences may be produced. The presence of alcohol will prevent the precipitation.

Chemical Gazette.

Scarification of the Gums—Reasons for it.—Dr. Marshall Hall says that there is no practical fact, of the truth and value of which he is more satisfied than that of the effect and efficacy of scarification of the gums in infants, and not in infants only, but in children. "The process of teething," he observes, "is one of augmented arterial action and of vascular action generally; but it is also one of augmented nervous action; for formation, like nutrition, secretion, &c., generally, is always one of nervi-vascular action, and of this the case in question is, from its peculiar rapidity, one of the most energetic. Like other physiological processes, it is apt to become, from that very character of energy, pathological, or of morbid activity. It is obviously, then, attended with extreme suffering to the little patient; the brain is irritable, and the child is restless and cross; the gums are tumid and heated; there is fever, an affection of the general vascular system, and there are, too frequently, convulsions of various degrees and kinds, manifested in the muscles which move the eyeball, the thumb and finger, the toes; the larynx, the parietes of the respiratory cavities; and the limbs and frame in general, affections of the excito-motor part of the nervous system, and of the secretions of the liver, kidneys, and intestines, affections of the ganglionic division of that system.

"What is the precise cause and source of these formidable effects? Can the mere tension and irritation of the gum situated over the more prominent part of the teeth be the cause of such extensive morbid actions? I think not. The real source of these phenomena is in the entire dental system, in which actions of unusual energy and extent are going on—sub-inflammatory they might be called, were they not, in reality, of an essentially different nature and origin. This undue action takes place in the fangs and sockets of the teeth in their whole extent, with their connections, vascular, nervous, and membranous. But *the* focus from which the *nervous* actions emanate is, I believe, not as is generally imagined, the nerves of the mere *gums* seated over the prominent parts of the teeth, but the nerves which may be emphatically termed *the nerves of the teeth themselves*, the nerves which enter into the very fangs and substance of the teeth.

"*It is to the base of the gums, not to their apex merely, that the scarification should be applied.* The most marked case in which I have observed the instant good effect of scarification was one in which *all the teeth had pierced the gums!*

"This view of the subject may assist in removing the futile objections of some who have, without due consideration I am convinced, opposed my plan of frequent, often daily, scarification of the gums, to whom I would say, as my sole reply: Better scarify the gums *unnecessarily* one hundred times than allow the accession of one fit or convulsion from the neglect of this operation, which is equally important in its results and trifling in its character.

"And it is not merely the prominent and tense gum over the edges of the teeth which should be divided; the gums, or rather the blood-vessels, immediately over the very *nerves of the teeth*, should be scarified and divided, as you would divide the vessels of the conjunctiva in inflammation of that membrane.

"Now, whilst there is fever or restlessness, or tendency to spasm or convulsion, this *local blood-letting* should be repeated daily, and in urgent cases even twice a day. I would here repeat my maxim: Better do this one hundred times unnecessarily than have one single fit from the neglect of so trifling an operation. A skilful person does it in a minute, and in a minute often prevents a most serious attack—an attack which may cripple the mind or limbs, or even take the life of our little patient, if frequently repeated. There is, in fact, no comparison between the means and the end, the one so trifling, the other so momentous."

London Lancet, May 18, 1844.

Caution in giving Albumen as an Antidote.—Practitioners, in employing albumen as an antidote to corrosive sublimate, should be aware that it may be given in too great quantity, as the compound formed is soluble in an excess of albumen, and in the deleterious combination which enters the blood, producing the remote influence of the poison. So long as the vomited matters contain a white opaque material admixed, the antidote should not be withheld; when the *ejecta*, on the contrary, become transparent, the further employment of the remedy is generally useless, and may be injurious.

Dub. Med. Jour.

Alcoholic Odor of the Fluid in the Ventricles of the Brain. Dr. Bradley, of Illinois, was summoned before a coroner's inquest, held on the body of Samuel Page, as a medical witness. The deceased was found about two miles from the village, in his wagon, with his feet hanging over the foreboard, his body resting upon a bag of grain, and his head upon the bottom of the wagon. He was totally insensible, and his breathing stertorous and difficult. He was taken to a neighboring dwelling, where he died in about ten minutes. He had been drinking very freely for several days previous, but was not an habitual drunkard. He had left a grocery store a short time previous to being found, partially intoxicated, without mittens or any other "extra over-clothes," though the weather was somewhat below the freezing point.

On dissection, six hours after death, dark fluid blood poured forth from the sinuses of the brain, to the amount of eight or ten ounces. The brain exhibited excessive vascular turgescence; in the corpora striata, a small amount of sanguineous extravasation was detected, and in the lateral ventricles some serous effusion. Verdict, "death from apoplexy caused by intemperance."

The effused fluid found in the ventricles yielded strongly the alcoholic odor. This was so apparent, that it was readily recognised by every member of the jury.

Ill. Med. and Surg. Jour.

Malpractice.—The London Lancet, of the 24th of August, contains an account of the following most extraordinary instance of malpractice, resulting in the death of its subject:

The name of the unfortunate patient was Mary Dent, wife of John Dent, of Littleport, in the Isle of Ely, laborer; she was twenty-three years of age, of good health, and robust appearance; she had borne five children, and had miscarried once; she was married at a very early age, and became a mother when between sixteen and seventeen years old.

On the 22d day of May last, Mary Dent complained of feeling very unwell; she felt great pain, and vomited occasionally, and being apprehensive of miscarriage, sent off, about 11 o'clock at night, for Mr. John Garland, a person of middle age, who has practised as a surgeon and accoucheur, at Littleport, ever since 1816.

It appears that on the day in question the patient had occa-

sion to lift or drag a sack of flour, containing fourteen stone; it also appears that, according to her own account, she was at this time about three months advanced in pregnancy, having menstruated for the last time on the 14th of February.

Upon his arrival, Mr. Garland proceeded to examine the patient, by passing his hand and arm into the vagina, intending, as he himself expressed it, to "bring the child." He shortly afterwards made a second examination, whereupon the patient entreated of him to desist, "for he was pulling her entrails out;" and presently Ann Banyard, the nurse, saw hanging out in the bed "a large quantity of entrails, as many as could lie on a large plate." (I quote her own words as taken down by the coroner.)

When matters had arrived at this crisis, Mr. Garland appeared most anxious for further advice and assistance, and at his urgent request, a messenger was despatched to Ely, who returned, bringing with him Mr. Jones, of Ely, surgeon.

Upon turning down the bed-clothes, Mr. Jones discovered in the bed a something, which he at first mistook for the umbilical cord, but a more careful examination convinced him that the protruding mass was small intestine, depending from the vagina. Upon a minute inspection, he ascertained that the intestine was completely detached from the mesentery, throughout its whole length, and that it was extensively lacerated; the distal portion being torn completely across, that is, its whole diameter being completely divided, whilst the proximal portion was lacerated, so as to be very nearly divided. Under these unfortunate and perplexing circumstances, Mr. Jones was of opinion that any attempt to save the intestine would prove useless, he therefore passed a ligature around the intestine, above the proximal laceration, and close to the vagina, and cut off all the intestine below the ligature; the intestine, so cut off, measured nineteen feet six inches. Mr. Jones then took his departure, stating his belief that the patient could not survive many hours.

All this occurred between 4 and 7 o'clock, on the morning of the 23d of May. Shortly after the departure of Messrs. Jones and Garland, the fœtus was found in the bed; it appeared a fœtus of about three months. About twelve hours after the application of the ligature, the bowel above the ligature became very much distended, and ultimately burst. Subsequently the nurse, Ann Banyard, removed about half a yard more of intestine, without any medical man being present; she cut it off, and she did so "because it became very black and was very offensive."

The poor woman lingered seventeen days, and expired suddenly and at once, whilst attempting to raise herself up in bed, on the 8th day of June. During this period she did not suffer so acutely as might have been imagined; for three or four days the stomach rejected every thing, but latterly it became much less irritable; her skin was cool, her pulse rarely above eighty, her countenance natural, and she complained of no pain, neither was there any appearance of hæmorrhage. She took a little simple sesqui-carbonate of soda as medicine, and weak gruel or chicken-broth as diet.

I was instructed to make a *post mortem* examination, about forty-eight hours after death. The following is the record of the examination:

A very marked flatness and depression was observable between the two ilia; over the whole abdomen the bodies of the vertebræ could be more distinctly felt than naturally they should be; the external parts of generation and the perinæum were very much excoriated. There was nothing else worthy of note about the trunk.

Upon opening the abdomen, the liver was ascertained to be healthy, as also the stomach. The omentum was offensive, black, gangrenous, and adherent to the arch of the colon and to the small intestines generally; this adhesion was more marked from the symphysis-pubis to the right than to the left iliac region.

The colon appeared shrunken and contracted, and was so adherent to the omentum throughout the extent of the ascending and transverse portions, that the omentum and colon might be turned back together; the whole of the ascending portion of the colon was in a state of complete gangrene; over the region of the cæcum a small and circumscribed collection of matter was found, and it appeared as if, in this situation, the small intestines had been separated from the large; the descending portion of the colon and the rectum were not in so diseased a condition.

About *two yards* only of small intestines remained in the abdomen, these, towards the lower portion, were very gangrenous, and upon tracing them downwards it was discovered that they were very adherent in the right iliac region, and that in this situation they dipped downwards and inwards to the right of the uterus, and became attached, by their lower margin, to the borders of an opening found in the right side of the vagina; the small intestines appeared to terminate in the vagina, for they could not be traced onwards to the large.

The mesentery was gangrenous, and had been torn in two or three places.

In the vagina was found, in the upper part and on the right side, a laceration sufficiently large to admit two or three of my fingers; this laceration was found to communicate with, and to lead into, the above-mentioned depending portion of small intestine, so that the fingers could readily be passed from the vagina into the small intestine; the vagina on the left side was healthy and unruptured.

The uterus was normal in size and appearance, and what perhaps is rather singular, did not exhibit any traces of recent impregnation.

The bladder was healthy, so were the lungs, and so was the heart.

The jury found Mr. Garland *guilty*, and he was sentenced to one month's imprisonment.

On the Possibility of Supporting Life on a Vegetable Diet.

To the Editor of the Lancet:

Sir: In the *Times* newspaper, of the 4th inst., you are reported to have said, "that you had found, to your surprise, that for the first fortnight of an untried prisoner's incarceration he was subjected to the lowest possible diet, being denied, in fact, all animal food for the first fourteen days of his confinement;" you obviously would represent this restriction from animal food as a most inhuman and injurious treatment.

I apprehend it to be impossible for you not to know that the experience of all ages has proved that the healthy man can be perfectly nourished without using a particle of animal food. I will fearlessly assert, from long experience, that vegetable food is much more salubrious than mixed diet in common use, in which, however, animal matter commonly enters in the smallest proportion. Numerous instances may be cited of persons who have lived for years in very good health without animal food; but I will here content myself with very shortly informing you of my personal experience in this matter.

In the year 1804 (in January) I resolved to confine myself to a strict vegetable diet; I was induced to this by severe bodily suffering. In this course I have persevered, without deviation, to the present time, now more than thirty-eight years, and by its means have now advanced in my eightieth year. The diet has been aided by other measures, which I need not enter into. I have brought up a large family on the same plan with perfect success. My eldest son, who was in childhood very delicate, with an obvious consumptive ten-

dency, has used the same regimen for an equal length of time, and is in perfect health; and I could cite numerous instances of its beneficial effects in various individuals.

I am no advocate for starvation, and opposed, certainly, to a mere bread-and-water diet. Indeed, I cannot approve of any fixed dietary, it being abhorrent to nature, which delights in variety; the vegetable kingdom affords variety sufficient to satisfy any healthy appetite.

I have addressed to you these facts, as in the station you hold as a member of Parliament what falls from you on medical subjects may have considerable influence either for good or for evil, and I shall be sorry to see talents of no mean order employed to fortify vulgar prejudices, or to disseminate erroneous opinions. I am, sir, your obedient servant,

WM. LAMBE, M.D.

Bromptly, June 6, 1844.

Hygienic Condition of Towns.—Over-Labor and Late Hours of Business.—It has long been a fact well known to the profession that towns are peculiarly inimical to the prolongation of life; that a very much smaller proportion of their inhabitants reach ripe old age than of those whose lives are spent in agricultural districts. Until within the last few years, however, this generally-acknowledged *truth* had not become an undeniable fact, susceptible of being palpably demonstrated by figures. Thanks to the elaborate statistical investigation which are being carried on in every part of England, we are now able to ascertain with the greatest precision, not only the comparative salubrity of town and country, but also the different salubrity of towns compared with each other. Thus, in the last report of the registrar-general of births, deaths, and marriages, in England, we find a comparative tabular view of the mortality at different ages in the county of Surrey, and in the towns of Liverpool and London. Taking, at the moment of birth, a generation of one hundred thousand, it appears that in Surrey fifty thousand (half) would reach the age of fifty; twenty thousand the age of seventy-five; and ten thousand the age of eighty. In London, forty thousand would reach the age of fifty; ten thousand the age of seventy-five; and five thousand the age of eighty. In Liverpool, twenty-five thousand, only, would reach the age of fifty; five thousand, only, the age of seventy-five; and one thousand five hundred the age of eighty.

The immense disparity in the duration of life in these different localities is no subject of surprise to the well informed medical hygienist. In it he sees the operation of known causes, which the ignorance of mankind has accumulated, and which it is his duty to point out. Among those causes, there is one which, no doubt, exercises the most pernicious influence over the health and longevity of the denizens of towns, and which has, of late, excited the attention of the public to a great extent, viz., over-labor, and lengthened in-door confinement.

For many years the sympathies of the public generally have been justly given to the unfortunate females and children whose bodily strength is tasked to such an inhuman extent in the factories of our large commercial districts, and we are now pleased to find that philanthropists are becoming alive to the important fact that it is not only the factory laborers whose health and strength requires protection. There are many other classes of society to whom it is equally necessary. Indeed, this feeling is so rapidly gaining ground that we are on the eve of important changes in the social organization of labor, wherever large masses of people are congregated. True it is that Lord Ashley's amendment with respect to factory labor, which may be said to have embodied this feeling, in our legislature, has been definitely rejected by an overwhelming majority; in that rejection, however, we do not see the overthrow of a principle, but merely the irresistible sway of economical and political considerations. Under the influence of the first charitable impulse, the House of Commons decided that protection should be given to the young, and thus spontaneously acknowledged the sacred rights of humanity; but the sacrifice was too great, too momentous, to be permanent. Although ourselves convinced of the *absolute necessity* of protecting children and women in their struggle with machinery and commercial rivalry, and inclined to believe that the pecuniary loss to themselves and their employers has been greatly exaggerated, yet we admit the possibility of the change being attended, as most changes are, with immediate painful consequences to all parties.

We have, however, greater confidence than our opponents, most of whom we believe to be conscientious in the defence of their opinions, in the elasticity of the laws regulating labor. We cannot bring ourselves to believe that an hour or two additional taken from the daily work of the children and women of our factory districts would entail destruction on our foreign and domestic commerce. Moreover, it must be evi-

dent to any one that if, as the manufacturers assert, their profits depend on the eleventh and twelfth hours of child labor, their position would be the same were they to reduce wages a sixth and take on the additional hands. Now, miserably small as are the wages at present, inadequate, as the remuneration undoubtedly is, for the labor performed, yet we had rather see the pay still further reduced than allow women and children to be worked from 6 o'clock in the morning until 8 in the evening, including meals. As physiologists and practitioners, we cannot be blind to the fact that such labor is calculated to sap the very sources of life, and to lay the foundation for the cachectic diseases which, in reality, do carry off the successive generations of factory laborers, as is evident from the statistics we have alluded to. There is, also, another important feature in the case, which must not be lost sight of, which is, that the operation of machinery has displaced the operation of the laws of nature. It is the father of the family who ought to provide for his wife and children, and not the wife and children who ought to provide for the father, as is now the case. When the working of society produces such anomalies as these, it is the duty of the legislature to interfere, and to save, even at the expense of enormous sacrifices to the country at large, women and children from being ground to the earth by over-labor, to prevent the population of manufacturing towns from being poisoned at its very source. Such interference is merely giving to the weak and the young the protection which humanity renders it imperative on the legislators of every country to afford; it is not, properly speaking, interfering with the laws of labor. The government of a nation has, however, in our opinion, a *right* to interfere, even with the labor of adult men, on hygienic national grounds.

The ten-hours' factory bill will, no doubt, be again brought in the House, perhaps under more favorable circumstances, and we feel convinced that before many years have elapsed it will be the law of the land. Before, however, we dismiss the subject for the present, we must remind our medical brethren that they are, to a certain extent, the guardians of the public health—that on all general sanatory questions their opinion has great weight—that it is, consequently, their duty to prepare for future debates by collecting as much evidence as they can possibly bring to bear on the subject.* In the meetings which have taken place in the manufacturing towns of the north of England in favor of the ten-hour clause, we have observed among those who have taken an active part in the

proceedings many medical practitioners of weight and standing, whose statements have every where been received with respect and attention. Their example must not be lost to the profession, which we know will continue to show itself, as in all other great social questions, the true friend of the suffering and afflicted.

In the meantime there are others among the denizens of towns scarcely less afflicted than the factory artisans, and whose sufferings are beginning to attract public attention. Few of these are more deserving of commiseration than the young men and women who are employed in the shops of the metropolis, and of large towns generally. Obliged to rise early in order to prepare for the business of the day, they remain on their feet until late in the evening, without a respite. Their meals, even, are hurriedly despatched in the course of a few minutes, in order that they may not interfere with the claims of business. An important section of the metropolitan tradespeople—the drapers—have, we are pleased to see, taken up the subject with great spirit. Last year they offered a prize of twenty guineas for the best essay on "the evils of the present protracted hours of trade generally." This prize has been awarded to Mr. Thomas Davies, himself one of the sufferers, for a very able and elaborate essay on the subject. The essay of Mr. Davies reflects great credit on his instruction and abilities, and gives a vivid picture of the pernicious effects, both as to health, morals, and mental cultivation, of the discipline to which he and his associates have to submit in linen-drapers' shops. The day is consumed in the incessant repetition of services which, though slight, becomes trying to the strength, from their continuance. The assistant is not allowed to sit down, because it would be unbusiness-like, and when at last, at 9 or 10 o'clock, the shop closes to the public, he has still one, two, or three hours' work to perform, in order to fold and replace the various articles that have been disarranged during the day.

The result of this close confinement during the day and evening in a heated atmosphere, and of incessant labor, continued during a period of fourteen or sixteen hours, is very destructive to health, as might be anticipated. Many youths are obliged to return to their friends within a few months of their arrival at the establishments. Many others lose their previously robust health, and either die consumptive, or become confirmed invalids. But we refer our readers to the pamphlet of Mr. Davies for ample details on this interesting subject.

The evils are not confined to the linen-drapers. They apply with equal force to all tradespeople who open early and shut late, passing their lives in their shops or their back parlors. All medical gentlemen practising in large towns are unanimous in their opinion that the resident tradespeople, and their assistants, are among the most unhealthy part of the population, and that this unhealthiness is in a great measure attributable to the confinement which their occupations entail upon them. The evil is great, no doubt, but the question which naturally presents itself to us is—can it be remedied? We think that it certainly may be, and that without entailing upon the community any of the loss which, it is believed, by so many, would follow the adoption of the ten hours' factory clause. Indeed, the good sense of the sufferers themselves has pointed out the mode of relief. In London, and in several of our large provincial towns, associations have been formed for promoting the early closing of shops. These associations have every where received the support of philanthropists of wealth and station; and we may mention, that in Liverpool it is presided over by the mayor, and patronised by most of the influential residents.

By such means a certain amount of good may be effected. The wealthier tradespeople who are alive to the injurious effects of the present system on themselves and their subordinates will, no doubt, gladly avail themselves of the sanction of the affluent and influential to close their establishments at an early hour. But there will always be many needy or avaricious persons who will keep their shops open, were it only to profit by the closure of those of their neighbors, and thus will the end in view be partly defeated.

Such being the case, why should not the legislature take the subject in hand, and render it imperative on the part of all retailers to close their shops at a certain hour, say 6 or 7, P. M.? By the same rule that all the wholesale commerce of the country is carried on in the middle of the day, so might also the retail. The banks, boards, and offices of all description, close at an early hour, why should not retail establishments? Any inconvenience which might be felt would only be temporary. The habits of the community, of the poor as well as of the rich, would soon bend to the new hours of trade. In working out such an idea for practical purposes, many points would necessarily have to be taken into consideration. It might, for instance, be found necessary to except for certain periods, or on certain days, shops kept for the sale of provisions, &c. We merely suggest the principle as one

which it would be easy to apply, and the application of which would materially improve the physical and moral condition of a very large and important class of the community. Such interference with labor as this, is not only allowable, but absolutely necessary, if we wish to make our improved knowledge of the laws which regulate health and disease conducive to the prosperity and welfare of mankind.—*Lancet.*

Dr. C. J. B. Williams on Constipation.—We now pass on to the consideration of that form of *constipation* which corresponds with indigestion. This affection is principally seated in the colon, and may be regarded as opposed to diarrhœa; it may consist in defective secretion of the canal, or defective muscular action, or both combined; and each of these, defective secretion and defective muscular action, may depend on different pathological causes. Generally speaking, defective secretion and defective muscular action go together, just as excessive secretion and excessive muscular action of the canal constitute diarrhœa. They produce torpor of the bowels, and extreme irregularity in their action.

Now, among the *causes* to which we may trace this imperfect action, we find, in the first place, the character of the food to be the main source of costiveness. For example, food of a certain nature will produce fæculent matter, but does not, by its presence, excite the biliary secretion, or the peristaltic action of the bowels. This is the character of all farinaceous food generally; more particularly of those kinds which abound in starch, as arrow-root, gluten, and rice. Rice and arrow-root we find are constipating, not from any astringent property they possess, but merely negatively so, from the want of any stimulating property. Fæculent matter, formed in large quantity, tends to lessen, rather than increase the peristaltic action; and the bowels are liable to become costive from the mechanical obstruction offered to the passage of the food. Further, the food may be astringent, by having the effect of arresting the secretions of the canal, or else by its acrid and irritating quality, causing spasmodic contractions, as is sometimes the case in colic. Some liquids, such as vinegar in any considerable quantity, very often produce costiveness of the bowels, at the same time that they greatly irritate the passages.

Secondly, we may trace constipation to torpor or imperfect action of the intestinal muscles; and, perhaps, not only of the

muscles, but also of the secretory power of the intestines; for the intestinal canal is not only a moving organ, but also a secretory organ. This is illustrated after the operation of a strong purgative; the bowels generally become torpid, and inasmuch as the intestines become exhausted, and the secretions otherwise have been excited too freely, they seem to secrete less freely afterwards. But, sometimes, it is a sign of general weakness of the intestinal muscles, a part of the general weakness of the system; and, accordingly, in anæmia, you find torpor of the bowels taking place. The same thing is observed in any state of great weakness, after fevers and illnesses, and after extreme fatigue of the body. Paralysis, and particularly paraplegia, are causes of this. Some other causes act in a similar way. Enervating heat, exhausting the body, greatly reduces the powers of the intestines. Continued cold has a similar effect. Moderate cold, however, increases the tonic action of the intestines to a high degree. In other conditions—the state of atonic plethora, for example—a costive state of the bowels is frequently present. The excretions are often defective from irritability of the muscles of the intestines.

Thirdly, this morbid condition may arise more directly from deficient secretion, rather than defective peristaltic action, which latter may go on, even if the secretion be imperfect; a scanty evacuation is the result. This is to be met with in connection with defective secretion of the liver, more particularly; arising from different diseases of that organ interrupting its secretion, or from obstruction of the ducts passing out of it. Diseased states, likewise, of the intestine, such as congestion of its coats, connected with derangement of the liver, are often attended with this sort of defective secretion. Inflammation may be considered as, in some degree, interfering with the powers of secretion of the liver and the intestines. Enteritis is one of the instances in which the secretion appears to be greatly interrupted. There is, here, not merely spasmodic contraction, but the secretion is interfered with. So, with regard to gastritis, where there is much irritation, it frequently happens that the lower part of the canal is defective in excitability and in secretion. Defective secretion and imperfect contractility are frequently combined together.

Now, from this you may understand that constipation may be either symptomatic of various diseases, or it may be idiopathic—itself the chief cause of disease. The frequency of the occurrence of symptomatic constipation is one great reason why purgatives are so often useful in the treatment of

diseases of almost every kind; for, in a majority of cases, there is symptomatic costiveness, and a tendency to great constipation of the bowels. It thus becomes an indication to use purgatives; not merely to remove this state, but, likewise, because the accumulation of the fæces becomes a source of still further mischief, aggravating greatly the organic disease, and adding to the local and general symptoms. In febrile diseases, there is apt to be a reaction, and it often happens that the evacuation of the loaded bowels very much mitigates this effect. Idiopathic constipation, where it exists without any other permanent disorder, is not uncommon, and, in a great number of cases, it, perhaps, consists in an insufficient action of the lower intestines, or of the colon. Sometimes, in costiveness, there is distention of the bowels, especially of the colon, by flatus, causing a feeling of fulness and tightness in the abdomen. There is often, too, considerable tympanitic distention, where wind is secreted in large quantities. Accordingly, the sounds arising from the motion of wind in the intestines are commonly heard in persons of a constipated habit. There are shifting or aching pains felt in various parts of the abdomen, usually, perhaps, in the right iliac, or hypochondriac region, about the right and sometimes the left hip, and in the loins; also, uneasy feelings, such as restlessness, and inability to be quiet, without being able to explain exactly why. In children, symptoms of chorea sometimes arise from a costive state of the bowels; and, in adults, there are cramps of the legs, which are very common signs connected with imperfect action of the bowels. Other symptoms arise in the general system; headache is a very common sign, and there is, in general, languor and depression of spirits. These different symptoms arise partly from the direct irritation of the accumulated fæces on the nerves, and partly from the noxious influence of the retained and absorbed excrement, for matters long retained in the alimentary canal, are partly absorbed again into the system. The fæces are in a compact and dry state, if the bowels are not regularly evacuated, which shows that the moister parts are absorbed away; and those persons who have habitual costiveness of the bowels, generally have unpleasant smells about them, and the countenance is more sallow than usual; the tongue is usually more or less loaded, and the breath is very fœtid; the fæces, too, are darker than usual, and they present a moulded form from the cells of the colon, or the different portions of the intestines in which they have been retained. The accumulation of fæces in the abdomen may cause a considerable amount of swelling, and vari-

ous other symptoms; for example, by their pressure, as not unfrequently happens, on the gall-ducts, they may produce jaundice; or, on the stomach, nausea, and a disturbance of the function of digestion, or dyspepsia; and, frequently, hæmorrhoidal swellings, or piles, are caused by their presence. In extreme cases, numbness and swelling of the legs, and even paralysis, have been induced by their pressure on the nerves of the pelvis. Sometimes the abdomen is enormously distended; and I have seen such patients, who have had the appearance of advanced degrees of dropsy, and who have been pronounced to be laboring under organic disease, and tumors of various kinds. I remember the case of a patient who, when brought into the hospital, was supposed to be affected with organic disease of the abdomen, and had been treated for such for some time, in whom the abdomen had been distended for six or eight weeks, to a very great degree, insomuch that the cartilages of the lower ribs were turned out, and yet all this tumor vanished, after a purgation of some days, and was produced solely by a vast accumulation of fæculent matter. Neglected constipation will lead to local irritation, and, as a result, you may have diarrhœa set up, from the irritation of the parts, and increased secretion results. Dysentery even may ensue, and inflammation of the colon, attended with pains of various kinds; neuralgia and severe griping pains of the bowels, accompanied with colic, and a spasmodic contraction, ending in deep-seated enteritis, and cholera. These are the local effects. Organic changes, too, may arise; and, in addition, a cachectic state of the whole system, a low febrile state, from the bad influence of the accumulated fæces on the nervous system.

The *predisposing causes* you may deduce from what I have already said, as to the pathological characters of constipation. Sedentary habits, especially when combined with various enervating influences, greatly promote constipation. This occurs very often among females who are much confined within doors, and who are in the habit of using but little exercise. It is sometimes excited by attacks of hysteria, and, as I said before, by bad or defective diet. Particular kinds of waters, those abounding in iron and calcareous matters greatly aid in producing constipation. All the different causes that produce general weakness may cause costiveness. Excessive action of purgatives, and neglect of the bowels, will often produce it. But, perhaps, one of the most frequent causes, which it is important to remember, is inattention to the calls of nature, or want of regularity in the evacuation of the

bowels. It is a process that ought always to be considered as conducive to health, and should be set apart to be done at a regular time in the day, quite as much so as the eating of any given meal.

Now, with regard to *the treatment.* The first indication of the common form of constipation, where there is an accumulation of fæces, is to unload the bowels; and to fulfil this, purgatives and injections are the chief means. The best purgatives for this purpose are the mixed purgatives, those which exercise an action on the whole canal; for, although costiveness often proceeds from the defect of one part of the canal, the torpor ultimately extends to the whole; and it is not a safe practice to administer too strong a purgative of one kind, to act on one part of the canal only. The effect of giving a large dose of aloes, or a large dose of colocynth alone, is to irritate one part of the canal, and leave the liver unaffected, and thus, perhaps, convert constipation into inflammation. For this reason it is highly advantageous to combine the different purgatives together; and if there is already much pain and irritation produced by the constipation, we should combine with purgatives those medicines which deaden the sensibility, and prevent spasm. For this reason, the combination of calomel, colocynth, rhubarb, and henbane, answers well. If these are not sufficient, great advantage will result from the addition of occasional doses of castor oil, or else of salts and senna, in the form of a black draught. I cannot dwell too strongly on the virtues of castor oil in cases of prolonged constipation. If given in large doses, it does not irritate as other medicines; yet it acts more thoroughly; it penetrates, and, in some degrees, has the mechanical power of insinuating itself into the crevices and curvatures of the intestines, and thus dislodging the accumulated masses, where calomel and other medicines had failed to act. Mercury, though it acts more especially on the liver, and stimulates the secretion of bile, is accompanied with a great deal of griping pain, and is not, by itself, so effective in unloading the bowels. Where the accumulation is very considerable, it is desirable to facilitate the action of the bowels by copious injections of oil or soap and water. Remember that these accumulations of fæculent matter sometimes consist of a hard and compact mass—so hard that purgatives, which merely stimulate the canal to contraction, produce very little effect upon it. Injections of castor oil, with a little turpentine, or of olive and linseed oil, mixed up with gruel, are useful; of this one, two, three, or four pints may be thrown up. The use of turpen-

tine is indicated where there is a tympanitic distention of the abdomen. Rue and asafœtida injections are also useful in such cases. After the fæces have been dissolved, the bowels pass into an irritable state, and there is often a considerable amount of pain. It frequently happens that, after the great accumulation has been removed, the tongue is more furred, the pulse more excited, and the system more deranged. In this state of things, mercurial purgatives, combined with opium, or mercury and Dover's powder, followed by small doses of castor oil, or else rhubarb, or some other mild aperient, may be given, for several days afterwards, with great advantage. If the opium irritates, instead of giving Dover's powder, conium may be employed as a substitute; moderate doses of conium and mild aperients may be given until the bowels are brought into regular action. Where there is a tendency to low inflammatory affections, such as gastritic dyspepsia, which often occurs in costive habits, the aperient that suits best will be found to be small doses of castor oil; a teaspoonful, the first thing in the morning, or the last thing at night, acts admirably, and ensures the regular evacuation of the bowels. In some persons olive oil acts in the same way. Castor oil is extremely valuable in cases of dyspepsia, where stronger purgatives do mischief. Sulphate of potash and sulphur sometimes answer very well.

The diet of persons disposed to constipation should be of a plain character, not too much abounding in farinaceous food. Too much bread should be avoided. There is a common error with respect to bread, and many persons will eat it all day long; hence, it becomes a great cause of constipation. It is better to eat it two or three times a day, in small quantities. A thing you will find of great use—and which is very popular in the sister-kingdom—is oatmeal porridge. It has none of the constipating effects of farinaceous food in general. Fruit is very often taken with a view to counteract costiveness, but I believe its effect has been overrated. The most important part of the treatment of constipation consists in preventing the accumulation of fæculent matter; and, therefore, the promoting of the proper and natural action of the bowels is far better than any description of diet or medicine that can be given. I must say a few words upon the practice fallen into of late, by a good many individuals, namely: that of confining themselves to the use of injections to promote the action of the bowels. I think this practice is a very injurious one; for, when injections are frequently administered, instead of producing a healthy action in the bowels, they generally tend to

bring it into a state of torpor. They mechanically distend the bowels, and thus do mischief. General tonic measures, to improve the health, are sometimes necessary. The application of electricity, or galvanism, has been recommended by some to promote the action of the bowels; it may be useful so far as excitement of the peristaltic action is concerned.

Boston Med. and Surg. Jour., from *Lon. Med. Times.*

Mania a Potu.—The diminution in the number of cases of *mania a potu* (in the Philadelphia Hospital) is striking, in the first six years there being two hundred and sixty-four deaths, while in the second half of the series there are but forty-nine. The striking disproportion is probably to be accounted for by the change in habits induced by the progression of temperance. The admissions now are by no means as frequent as formerly, and very rarely advance to the third stage of this disease.

On the authority of Dr. Gerhard, I may state that the treatment in the men's department, until the year 1837, had been by opiates, and that the number of deaths to those admitted, had been in the proportion of 1 to 10. He then tried stimulation by alcohol, and we have this result:

	Admitted.	Cured.	Died.
Intoxication,	61	61	0
Delirium Tremens, 1st stage,	87	87	0
" " 2d "	73	73	0
" " 3d "	2	1	1

"The fatal case died a few hours after his entrance, and had been treated by opium in the city." But that this stimulant is not required, I give the report of Dr. Dunglison, who has charge of the Women's Asylum for six months of the year. He "used not a drop of alcoholic liquor." His course "has been entirely eclectic, in many cases expectant," and in its support we have the following:

	Admitted.	Cured.	Died.
Intoxication,	44	44	0
Delirium Tremens, 1st stage,	55	55	0
" " 2d "	19	19	0
" " 3d "	10	9	1

"which last died on the morning after admission, and had been treated elsewhere for nearly a week."

Am. Jour. Med. Sci., for Octo er.

Early Puberty in Greece.—Mr. Strong, the Bavarian consul at Athens, in a recent work, (Greece as a Kingdom, 8vo., London,) says: "Nature is so extremely precocious in Greece, that females attain the age of puberty at 10 or 11 years, and men at 15 or 16. Young lads of 16 and 17 are frequently met with in the villages already married and with families. I am acquainted with a lady of one of the first Athenian families, who, though only 25 years of age, has already had sixteen children, (eight of them twins,) of whom seven are still alive. It may scarcely appear credible in England, but there is now at Athens a venerable grandmamma in the person of a lady not yet 24 years old. She was married when 11 years of age, and had a daughter in the course of a year. That daughter married, also, when scarcely 11, and has just become a mother."—*Boston Med. and Surg. Jour.*

Organ of Calculation.—Vermont has furnished two or three boys, within the last twenty-five years, whose sagacity for arithmetical pursuits was of an extraordinary character. The autobiography of the far-famed Zera Colburn is familiar to the public. After having positively astonished the mathematicians, both here and in Europe, with the rapidity, accuracy and mystery with which he conducted the most elaborate arithmatical calculations, all at once, equally to the surprise of himself and every body else, he actually lost the faculty of doing wonders in figures. No effort on his part was successful in recovering a power that made his name ring over the world as an eighth wonder.

Another calculating boy, by the name of Safford, now only eight years of age, says the Vermont Journal, has been discovered in Vermont, who will give the product of four figures by four, performing the operation mentally nearly as quick as one can do it with pen and paper. He has also multipled five places of figures by five, which was the extent of Zera Colburn's powers in his best days. He will extract the square and cube roots of numbers extending to nine or ten places, performing the operation quite rapidly in his head. The division of numbers into their factors is a favorite amusement with him. Give him the age of a person, and he will give the number of seconds correctly.

How can the doctrines of the phrenologist be called in question, with such sustaining proofs of their truth, as are presented in this and many other analogous cases?

Boston Med. and Surg. Jour.

Prestat's Adhesive Plaster.—The following composition is said never to crack, and not to inflame the skin:—Empl. diachyl. gum, 400 grains; purified rosin, 50 grains; tereb. venet., 38 grains, are mixed together at a gentle heat, and then 12 grains of gum mastich and 12 grains of gum ammoniac incorporated, and the mass spread on linen. In winter it is advisable to add 10 grains more turpentine, and 12 grs. ol. amygdal.—*Journ. für Prakt. Chem.*

On the Employment of Castor Seeds.—Castor oil, says M. Soubeiran, is less purgative than the seeds which furnish it. This is because the oil which flows out in the press contains, comparatively, less resin than remains in the residue. M. Mialhe relates various therapeutical results obtained by means of an emulsion, prepared with fresh seeds of castor, which entirely confirmed this opinion; for, with ten grammes of seeds deprived of their shells, there was an emeto-cathartic effect, which continued for three days, neither opiates, cold gaseous drinks, nor cataplasms being able to subdue it. An emulsion prepared with six grammes produced twenty-eight vomitings, and eighteen alvine evacuations. Finally, with a third emulsion, containing only one grain of castor seeds, the emeto-cathartic effect was still very powerful. From these facts M. Mialhe concludes: 1st. That the oleoresinous principle found by M. Soubeiran in castor seeds exists only in very small proportion in the oil of these seeds, whilst the whole of it was found in their emulsion. 2d. That French castor contains a large proportion of the acrid emeto-cathartic principle belonging to a great number of the plants of the *Euphorbiaceæ*. 3d. That the emulsion of castor seeds prepared with only twenty, thirty, or fifty centigrammes of these seeds, constitutes, perhaps, the most agreeable purgative of all those at present in use, (if, however, the vomitive effect of this emulsion completely ceases when the dose of seed is suitably diminished.) Although this latter peculiarity has not yet been proved by clinical observation, it is probable that it is the case; for it is almost certain that the active principle of castor is analogous to, if not identical with, that of croton oil. Now, it is known that this latter oil, which is a simple purgative in the dose of one drop, becomes emeto-cathartic when this small dose is exceeded.—*Boston Med. and Surg. Jour.*, from *Bulletin de Therapeutique.*

Ovarian Disease.—Dr. Jeaffreson thus sums up the results of the operation for the extirpation of ovarian tumors in 74 cases:—In 37 cases the tumor was removed and the patient recovered; in 24 the operation was followed by the death of the patient; of these 24 fatal cases, the tumor was removed in 14, could not be removed on account of adhesions in 6, and was found to be other than ovarian tumors in 4 cases. Thus, again, in 74 cases, in which the operation for extirpation of ovarian tumor had been undertaken, it has been completed in 51 instances, in 14 of which it has been followed by death, and in 37 by the successful removal of the tumors, and by recovery of the patients; whilst, out of the 74 cases selected, it was found impossible to carry out the intentions of the operator in 23; or, in other words, the diagnosis was not sufficiently accurate to enable the surgeon to foresee the impracticability of carrying out his intentions. Of these 23 cases, 13 recovered with life, to remain in *statu quo;* 10 died. The cause of failure was, impossibility of removing the tumor, on account of adhesions, in 14 cases; no tumor was found in 3 cases; and the tumor proved to be other than ovarian in 6 instances.—*Boston Med. and Surg. Jour.*, from *London Medical Times.*

Bronchocele.—Dr. B. R. Morris calls attention to rheumatism as an occasional cause of goitre, and relates three cases of the disease which he attributes to that cause. In one of these cases a cure was effected by the use of half a drachm of hydriodate of potass in an ounce of soap liniment, rubbed into the tumor every night.

L. and E. Month. Jour. Med. Sci.

Reunion of a divided Nerve.—Dr. Oke relates, in the Provincial Medical and Surgical Journal, July 24th, 1844, the following interesting fact in a physiological point of view:

In cutting through the muscles in an operation for necrosis of the humerus, the musculo-cutaneous nerve was unavoidably divided, which occasioned the instantaneous dropping of the hand. This appeared at first to be an unfortunate result, as it was feared it might occasion the permanent loss of the hand and deprive the patient of the power of writing, for he could use his pen tolerably well.

To make up for so serious a deprivation in some degree, as soon as the state of the right arm would admit of it, he was sent to a schoolmaster to be taught to write with his left hand, which, in about four months, he accomplished; but at the end of this time, I was gratified to observe a returning power in the right hand. The power gradually increased; and in the course of a few weeks he completely regained its use, and thus was enabled to write with both hands.

This was an important fact in physiology, inasmuch as it showed that the trunk of a nerve, though it be divided and its ends kept apart for a considerable time, might eventually unite and regain its normal functions.

American Journal Medical Sciences.

Medical Charity Fund of Lower Canada.—Reference was recently made, in the Journal, to the late anniversary of the Medical Charitable Association of New York. A similar society has been organised in Lower Canada, to meet alternately at Quebec and Montreal. The object is to afford relief to distressed physicians, caused by inability to practice, either through age or infirmity; and, also, to relieve the widows and orphans of physicians. With a view to raising a fund to draw upon in after times, the society proposes not to begin to extend relief till the expiration of ten years from this time. Each member is to pay, yearly, into the treasury, £3, which in ten years will amount to £4,558, interest included, provided 100 members are joined. At the end of the ten years there would be at the disposal of the committee of relief £285, the interest of the capital.

This is a spirited, humane movement, honorable to the profession of Canada. It is strange that the practitioners of Massachusetts, but especially those of Boston, cannot be roused to action in this important matter. Surely there are enough in active business, who might easily appropriate a small sum annually, for a fund to feed and clothe the unfortunate of their own profession. We have urged the matter so often, that a feeling of discouragement comes over us, and especially when we witness the exertions of others, in every direction, in such a noble charity.

Boston Med. and Surg. Jour.

THE WESTERN JOURNAL.

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LOUISVILLE, JANUARY 1, 1845.

MEDICAL INSTITUTE OF LOUISVILLE.

We have before us, just issued from the press, the Eighth Annual Catalogue of this Institution. It numbers 286, or 24 more than that of any preceding session. 'Till the making up of this class, that of Transylvania University, in 1825–'6, 19 years ago, was the largest ever assembled in the Valley of the Mississippi. By a curious coincidence, it was the Eighth Session of that school which brought a more numerous class than it ever attracted before or since. We are unwilling to believe, that the classes of the Institute are to follow the same law, and not again to equal that of this year. At the time referred to, Transylvania had six professors, of whom one-half are now in the Institute. Their tickets were $20 each, making $120; but the professors received for them the paper of the Commonwealth's Bank, which had depreciated to fifty cents on the dollar; so that attendance on all the lectures cost, in fact, but $60. It was, at the time supposed, that this was one cause of the numerous class of that session. That nothing of the kind has operated to aid the Institute the present session, is obvious, from the fact that it has

seven professors, whose tickets amount to $105; and no depreciated bank paper is received, except that of Alabama, which is at a discount of 5 *per cent.* only. It would seem, then, to be the intrinsic advantages—real or supposed—of the Institute, that have secured its present encouraging class. It may be said, however, that the population of the Valley of the Mississippi has greatly increased in 19 years. This is true, but as we shall presently see, the number of schools has increased at a still higher ratio. Before proceeding to enumerate them, we will compare the two catalogues of which we have spoken, and see the relative numbers from different States.

MEDICAL INSTITUTE OF LOUISVILLE, 1844–'5.		TRANSYLVANIA UNIVERSITY, 1825–'6.	
Kentucky,	87	Kentucky,	101
Tennessee,	56	Tennessee,	53
Mississippi,	44	Mississippi,	7
Alabama,	31	Alabama,	30
Indiana,	14	Indiana,	5
Missouri,	13	Missouri,	5
Illinois,	10	Illinois,	4
Ohio,	9	Ohio,	8
Arkansas,	6	Arkansas,	1
Louisiana,	5	Louisiana,	3
North Carolina,	4	North Carolina,	13
Georgia,	4	Georgia,	7
Virginia,	1	Virginia,	25
Iowa,	1	Iowa,	0
Texas,	1	Texas,	0
South Carolina,	0	South Carolina,	18
New York,	0	New York,	1
Maryland,	0	Maryland,	1
Total,	286	Total,	282

By an examination of these columns, we find, that ours is more of a Western class than that of 1825, the whole except 9 being from the Valley of the Mississippi; while of the class of 1825, 65 were from the old States. We also find, that the increase has been from the States of Mississippi, Indiana, Missouri, Illinois, Arkansas, and Louisiana—most of all from the first. On the other hand, there are 14 fewer from Kentucky, than Transylvania then had; while Tennessee, Alabama, and Ohio, give about the same number as they then gave.

Let us now turn to the relative number of schools at the two periods. We do not recollect precisely when the schools of Charleston, S. C., and Charlottsville, Va., were established, but if previous to 1825, they were then in their infancy, and may be included in the catalogue of creations since that time. To these we may add, the second Virginia school at Richmond, and the school of Georgia. To the establishment of these four Institutions, we may in *part* ascribe our small number of pupils from Virginia, the Carolinas, and Georgia; but it is also partly referrible to the greater distance of Louisville than Lexington, from those States. What number Transylvania has this year, from them, we have not heard. When we direct our attention to the West, we find, as already stated, 277 of our pupils are supplied by *it*, while in 1825 it supplied but 217—difference 60. Now, in 1825, there were but two schools in the West, that of Lexington and that of Cincinnati; but at present there are, in addition, one in New Orleans, two in St. Louis, two in Illinois, one in Indiana, and two in Ohio, making, with the Institute, eleven in all. How can it be, that the Institute has from the West 60 students more than Transylvania had in 1825, when nine new schools have been established since that time? It results from the increase of population; which in the West, from the Lakes to the Gulf, was (exclusive of Michigan) in 1820, 2,203,568, and in 1840, 6,103,161, giving an increase of 277 *per cent.* But during the same period, the number of schools increased 550 *per cent.*, or at a ratio about twice as great. The friends of the Institute may, then, without boasting, or speaking invidiously of its sister institutions, claim that it exerts a powerful influence on the profession in the West, and is decidedly prosperous.

When we receive the catalogues of the various Western schools we shall compare the whole number of pupils, with the population supplying them. D.

RUTHERFORD COUNTY MEDICAL SOCIETY.

The physicians of Rutherford county, in Tennessee, have united in the organization of a society, for the advancement of medical science and the promotion of friendly professional intercourse, and

are holding meetings, at which papers on the medical topography of their county are read, and all medical matters interesting to the members, are brought up and discussed. Improvement to the members, and benefit to the community, must result from this association. We cannot conceive of any method so well calculated to advance all the great objects in which the profession have a deep concern, as the formation of such societies wherever a number of physicians can be brought together. Mutual instruction, a heightened taste for study, and harmony of professional intercourse, are the certain fruits of association under these circumstances, where it is kept up and cherished in the proper spirit. We should be glad to see a well organized, well conducted Medical Society in every county of every State, in which the medical profession make so respectable a portion of the population as they do in Rutherford. We wish the Medical Society of Rutherford, and every member thereof, abundant prosperity.

Y.

INTRODUCTORY LECTURES.

A number of Introductory Lectures, delivered at the opening of the various medical schools of the country, during the last autumn, have been laid on our table. The first we received was from Professor Harrison, of Cincinnati. His subject is "*The Formation of Professional Character,*" and is discussed with the earnestness of a man conscientiously devoted to the interests of his profession and of society. If we were to object to the lecture in any way, it would be to the style, which is, perhaps, somewhat verbose; but the matter is good, and the spirit excellent. We give a specimen:

"Industry is the primal fountain of all prosperity. The savage is indolent, and he is poor. Civilized man owes his comforts and luxuries;—his might and glory, to the ceaseless toil of his intellect and hands. Educing from the hidden resources of nature vast elements of power, the genius of man triumphs over the wants and weakness of his condition, and renders the very powers which threated his existence contributory to his well-being.

"Destitute of industry—of a well-sustained, systematic exertion of our mental powers, nothing permanently useful can be attained in our profession. Accident, or rash experiment, may hit on some valuable discovery but of what avail is such a disclosure on the part of

nature, if the patient labor of man does not make those applications of the discovery which render it available? The truth or fact discovered by accident or rash experiment, must be lifted up out of the isolation in which it stands and be made to blend with other truths or facts, and thus become instinct of new related tendencies. Patient toil of mind alone can discern these tendencies, and by giving a wider range of direction to the original discovery indefinitely expand the sphere of its agency.

"From the hour when the student takes a medical work in hand, through all the stages of his professional studies and researches, up to his brightest achievements of remedial skill, and along the whole progress of his career, an unremitting irrepressible exertion of his powers is required.

"Patience, as an habitual state of mind, must, with presiding authority, ever accompany the physician. When a student, there is a constant need of patience;—when young, in the active duties of the profession, patience is required—and in the busy employments of a large practice, patience must be exercised. Patience of preparation, the student should possess; patience of probation the young physician must have; and patience of temper, amidst the privations of repose and social enjoyments, and in the exhaustion of his mental and bodily strength, must be the ever-present support of the older practitioner."

Professor Draper, of the University of New York, has produced a lecture, "*On the Relations of Atmospheric Air to Animals and Plants,*" of very great beauty. In parts it is highly elaborate, and it abounds in poetry, as well as in science, as the following paragraph testifies:

"From this point of view, therefore, I look upon the vegetable world as an embodiment of the action of ethereal agents. A tree, when covered with blossoms in the spring, or laden with fruit in the autumn, is a resultant of the play of those active forces which have been emitted by the sun; an expression of what has been done by vibratory movements operating on ponderable molecules. As soon as the young plant has exposed itself to the solar beam, growth rapidly begins to take place, and organized matter to be condensed from the air, and now a green color is developed, and the stem elongates and leaves are put forth. In carrying forward all those multiplied operations which have ended in these events, its leaves and its stem have gone upward in search of light—light which has symmetrically arranged their parts and furnished their substance. But these general views are far from giving us an accurate idea of the forces that have been expended or the motions which have been executed in producing the result we contemplate. A forest tree, from its magnitude, rising perhaps a hundred feet from the ground, and spreading

its branches over hundreds of square yards, may impress us with a sense of sublimity; a section of its stem might assure us that it had lived for a thousand years, and its total weight could only be expressed by tons. An object like this may indeed call forth our admiration, but that admiration is expanded into astonishment, when we come to consider minutely the circumstances which have been involved in producing the result. If we conceive a single second of time, the beat of a pendulum, divided into a million of equal parts, and each one of those inconceivably brief periods divided again into a million of other equal parts—a wave of yellow light during one of these last small intervals has vibrated five hundred and thirty-five times. And now that yellow light is the agent which has been mainly involved in building up the parts of the tree, in fabricating its various structures, and during every one of a thousand summers, from sunrise to sunset the busy rays have been carrying on their operation,—who then can conceive when in the billionth of a second such enormous numbers of movements are accomplished, how many have been spent in erecting an aged forest oak? Who also can conceive the total amount of force employed from century to century in arranging the vegetation of the surface of the globe?"

Professor Childs delivered a lecture before the medical class of Willoughby University which is marked by vigorous and just thought, and a pure, simple, perspicuous style. His subject is "*General Principles in Medicine.*" We make room for a single extract:

"This leads me to notice *two classes* of educated physicians, (and of the educated only I speak)—and the striking contrast they exhibit. In the one class, the physician adopts an *exclusive system* and practices by *rule*. He is confined to a specific direction, which, in the nature of things, must be limited in its application. All must be stretched or shortened to the same Procrustean bed—all must take the same remedy—investigation is proscribed, and discrimination is heresy. If timid, his practice must be inefficient; if bold, he strikes with herculean club, but uncertain aim, a hazardous and probably fatal blow. He must grope in darkness. The other arranges the *facts* of medicine, and deducing therefrom by a legitimate induction, *general principles*, makes these the sole guides in his practice. In these, too, he finds a *true standard*, the great desideratum in medicine, and to this test brings all theory, and all modes of practice—a righteous decision awaits the trial. In the Cullenian, Brunonian and Broussaian systems—systems which have exerted a mighty sway over the profession at different periods in the history of science, which have divided the medical world into sects, and perpetuated the names of their authors, he finds the most oppo-

site and contradictory doctrines. They cannot all be true. Arraign them at the bar of general principles, and what is the verdict rendered? In all, *some truth* and *much error* are the ingredients of the composition. The chaff must be winnowed from the wheat. What of truth in each will be retained, and the proof of the true is demonstrated from its consistency with itself and its harmony with all known truth. *His principles* will include every remedial agent ever found useful in the treatment of disease. From the harmless leeches and gum water of Broussais, to the ready lancet and the energetic calomel of Rush—from the depletions of Sydenham to the stimulants of Brown—from the cold water of Hydropathy, to the hot water of Sangrado—none will be proscribed from *his* system. And, think you that the scientific and discriminating physician I have described—the man of principle—will not measure swords with his exclusive competitor? Nay, he will vanquish him *with his own weapons!*

The lecture of Austin Flint, M.D., Professor of the Institutes of Medicine, in the Rush Medical College, at Chicago, will compare with the best of this class of productions. The author is a scholar, and a polished and elegant writer. We regret that we have no room for an extract. Y.

SOUTHERN MEDICAL AND SURGICAL JOURNAL.

This periodical, emanating from the Medical College of Georgia, having been suspended at the death of its editor, Professor Anthony, has been revived, and the first number of the new series is before us, in a good looking pamphlet of 48 pages. The work is under the editorial management of two members of the faculty of the Medical College of Georgia, Paul F. Eve, M.D., and I. P. Garvin, M.D. The first number contains a fair proportion of original matter, and the articles appear to have been written with care and ablity..

This makes the third medical journal which has been *enterprised* in the South and West in the last year—the Illinois Medical and Surgical Journal, the New Orleans Medical Journal, and the one which stands at the head of this article. They are none too many, for the readers are plenty in all the region over which they are meant to circulate. If they can secure a good share of the patronage which ought to be extended to journals of medicine, their success will be no longer doubtful. Y.

REPORT OF THE PHYSICIANS TO THE KENTUCKY PENITENTIARY.

The Physicians to the Kentucky Penitentiary, at Frankfort, Drs. W. C. and Lewis Sneed, report one hundred and ninety-six cases of disease as having been treated in that institution during the ten months of their attendance. Of these the most numerous were cholera morbus, intermittent fever, parotitis, and constipation. During all the time not a death has occurred in the penitentiary, although many of the attacks were of a violent character. The physicians conclude their report with the following statement:

"A large number of the convicts sent to this institution are men who have been regular drinkers, or confirmed drunkards, and consequently, enter the prison with constitutions so much impaired by disease and dissipation, that they require more or less medical treatment before they are in a condition for manual labor." Y.

LOUISVILLE SUMMER SCHOOL OF MEDICINE.

Lectures will be delivered in Louisville on the different branches of medicine, during the ensuing vacation of the Institute, by Drs. Cobb, Gross, Yandell, Bayless, Buck, and Colescott. The course will commence on the 17th of March, and terminate the last of October, with a recess during the months of July and August. Clinical instruction will be delivered at the Marine Hospital, and at a Dispensary, which will be maintained by the Faculty in connection with the school.

THE

WESTERN JOURNAL

OF

MEDICINE AND SURGERY.

FEBRUARY, 1845.

ART. I.—*An Account of Putrid Sore Throat, as it occurred in some parts of Ohio.* By JOHN DAWSON, M.D., of Jamestown, Ohio.

The design of this paper is to give some account of *Putrid Sore Throat* as it has manifested itself in our region for the last three or four years. Hippocrates says: "*Past things must be learned, present known, and things future foretold.*" Uttered as this has doubtless been, in reference to the duties devolving upon every physician; the mandate nevertheless, while it points out what ought to be done, makes rather too heavy a draught upon our feeble powers.

Of the '*past things*' we may attempt to give some account, but of the '*present*,' we always know too little, and of the '*future*,' generally nothing at all.

So far as the disease which is the subject of this essay is concerned, we could heartily wish the mandate of the 'Father of Medicine' capable of being obeyed. We should be glad to have learned everything of any consequence in relation to the history of *putrid sore throat*, or to be able to know exactly what it is *now*, but we should be still more gratified, if we were able to tell what its associations, or morbid phases, or even its results in any single case, may be in future.

Unable, therefore, to comply with any part of the injunction, we nevertheless look upon it as being an epitome, or rather the archetype of that system of philosophy denominated the *inductive:* viz. The observation of facts and the embodying of those conclusions that legitimately flow from them; and we suppose that the time will come, when the Father of the medical profession, at any rate, will be regarded as a fellow-laborer in building up the inductive system. But more immediately to our subject. We shall give some facts in regard to the prevalence of *putrid sore throat*, and then make such inferences as seem to be warranted.

The number of cases, which have fallen under our notice within the last three or four years, has been twenty-two.

Eleven of these occurred to children under ten years of age; four to children between ten and sixteen; and seven to adults. The youngest child was one year old, and the oldest adult was over sixty.

So far as sex is concerned, I have observed no difference, though my cases have not been sufficiently numerous to test this matter with accuracy.

Predisposed the most to this disease, have been children of a weak lax habit, or those laboring under a phthisical, or scrofulous diathesis. Generally, too, was noticed a want of that attention to cleanliness and clothing, so necessary to any thing like health. Four of the adults were of feeble constitution, and health more or less infirm. In the remaining three no constitutional disturbance of any kind was observed.

Most of the cases occurred after the breaking up of the winter and during the spring months, March, April, and May. Occasionally a case took place after this time, or during the cold damp weather of winter. These, however, were rare, the disease having displayed, so far as our observations have extended, a decided preference for the cold, damp and variable weather of the spring months. The past winter and spring, in our region, having been characterized by much rain, rapid changes in the temperature of the atmosphere, and a low range of the thermometer, we have had as a consequence more disorder of the throat than usual.

The number of families in which these cases occurred, was eleven, averaging two cases to the family; and the greatest number affected in any one family was four.

After its occurrence in a family, it was seldom noticed to spread to all the members, one or two generally being affected, while the rest would escape. In two instances the mother contracted the disease after the children had commenced convalescence.

HISTORY OF THE DISEASE.

By some name or other this disease has been known since the time of Hippocrates. The '*paristhemia*' of this author, signifying a throat affection, although too general to convey any thing like a correct idea of the lesions which usually occur in a case of putrid sore throat, is however as definite in meaning as the terms, '*squinsy*,' '*quinsy*,' '*cynanche*,' or '*angina*,' as used by later, and some modern writers, to designate inflammatory affections of the mucous membrane lining the palate and pharynx, and covering the tonsils.

It has been supposed that the '*Syrian* and *Egyptian ulcers*' mentioned by *Aretæus Cappadox*, and the '*pestilent ulcerated tonsils*' of *Etius Amidenus*, were of the character of putrid sore throat. Be this as it may, it seems pretty certain that the *malignant ulcers* of the *mouth and jaws*, described by *Riverius*, the *malignant squinsy* of *Brookes* and *Ball*, the *gangrenous quinsy* of *Böerhaave*, the *epidemic quinsy* of *Swan*,

the *angina maligna* or *ulcerous sore throat* of *Huxham* and *Fothergill*, and the *chynanche maligna* of *Cullen*, and some other writers, refer to the same disease. Indeed the accounts, although they are in many instances very brief and imperfect, consisting sometimes in nothing more than a bare mention of the disease, are, nevertheless, in some English as well as continental writers anterior to the present century, detailed with considerable accuracy. I allude to the essays of Fothergill and Huxham, both of whom are entitled to the credit of having brought before the profession much of what is now known respecting this malady. To Huxham in particular we are indebted for a faithful history of the disease as it prevailed in his town and other parts of the British dominion during the years 1751–'2–'3. Seemingly from the account of this very ingenious author, the disease was considered as having an identity of its own, as being different in history, symptoms, and the effects of remedies from all other diseases, but as bearing a close relation, in some few particulars, to typhus fever. Since Huxham's time the confusion of nomenclature has, as in ancient times, enveloped the subject; and we have Cullen and Thomas considering it as a variety of *quinsy* or cynance, (*cynanche maligna*), Rush, McIntosh, Eberle, and their cotemporaries as a variety of scarlatina, (s. maligna), and Bretonneau as a variety of croup, (diptheritis). Without much doubt there is something wrong in these classifications, and in another place this matter will be more fully discussed.

CAUSES, REMOTE AND PROXIMATE.

Unable as we are to tell anything about the specific virus by which many of our epidemics and endemic diseases are originated, we may, notwithstanding, entertain some hope that these mysterious agents may yet be brought to light by closely and assiduously cultivating every fact connected with their origin, progress, and termination. The disease we are considering, like many others, evidently has some relation, so far as its origin is concerned, with the season of the year, lo-

cality, habits, and thermometrical and barometrical conditions of the atmosphere. Invoked faithfully wherever this disease prevails, these circumstances may yet untie the 'gordian knot.' At any rate, they may always be regarded as essential to success in the treatment.

As early as the time of Hippocrates this disease was observed to prevail most in the "winter and spring time, when slimy phlegm falls from the head to the jugular veins which obstructeth the passages of its spirits with its cold gleiniess"—(Riverius). In his '*Dissertation on Ulcerous Sore Throat*,' Huxham found it to prevail most during the fall and winter, that had been preceded by a cold wet summer, (1751) in which a "vast quantity of rain fell. The summer was in general uncommonly wet, cold, and frequently stormy.—At the beginning of June, however, we had exceedingly hot weather, and some very sultry days in July and August; the atmosphere was almost always thick and moist, but the barometer commonly low. The fruits of the earth were crude, watery, and insipid, the harvest was excessively bad, and the grain of all kinds suffered greatly." Our author adds, that although at this particular time there was not much sickness prevailing, yet "there were hysterical and hypochondriacal diseases to some considerable extent; and there were also a kind of universal inactivity and lowness of spirits every where, and in all sorts of fever there was a surprising disposition to eruptions of some kind or other, to sweats, soreness of the throat, and aphthæ." Putrid sore throat, says Thomas, "often arises from a peculiar or humid state of the atmosphere, and so becomes epidemical, making its attacks chiefly on children and those of a weak, lax habit, principally about autumn and the beginning of winter." F. P. Emangard states, (in a *Memoir on Epidemic Angina*, *Paris*, 1829), that he had an opportunity in the year 1828 to observe some of the circumstances connected with the origin of this disease. "That year was characterized," says our author, "with frequent and abundant rains. The portion of the country where this epidemic presented itself is cut up by dales, at the bottom of

which there flow small streams subject to inundations, and is well covered with underwood, fir-trees, and forests, combining all the causes of permanent humidity, and a temperature nearly always cold. The inhabitants are located in these dales, on the borders of the woods, or in the midst of orchards, so as to be nearly deprived of the beneficent influence of the sun, and at the same time exposed to the action of the marshy exhalations." Here an epidemic angina maligna made its appearance towards the end of February, 1828, and continued until autumn.

But few cases, as has already been remarked, of this disease took place in our region anterior to the past winter and spring, and these, so far as could be observed, were in persons of a weak, lax habit, generally children, laboring under a diathesis, either phthisical or scrofulous, or chachectic from bad diet, a want of clothing, or the necessary attention to lodging and cleanliness. The month of October last, was ushered in with more rain than usual; and this continued to be a characteristic of the weather during the balance of the fall and winter. Indeed, the winter was unusually open, the weather variable, and so great an amount of rain had fallen that when the wet weather of March, April, and May came on, many sections of the country, embracing generally the flat table lands, were more or less inundated; and they continued in this situation until June, and in some instances until July. As a consequence of this state of things, thoracic diseases, pneumonia, pleuritis, &c., which are most common to the spring months were scarce, and in the majority of cases mild. Typhus fever, the "*black-tongue*," and the anginas, seemed to have taken their place, and constituted the principal disorders, in connexion with parotitis and measles, both of which were epidemic during the spring months, that we were called upon to treat. The angina attained nothing like a general prevalence. Confined almost exclusively to certain neighborhoods, it constituted almost entirely the only disease with which they were visited, during the season. Particularly, we did not rate the prevailing winds, but Riverius says,

upon the authority of Hippocrates, that the angina of ancient times prevailed most during the presence of '*southerly winds.*' The thermometrical condition of the atmosphere in our vicinity, was characterized by great variations. For a few days the weather would be warm, with a moist atmosphere, imparting to plants the first impulses of vegetation, when suddenly a cold north-west wind would make its appearance and blight the prospect of returning spring. This state of things continued through March, April, and a good part of May. Nothing more in regard to the etiology of the disease was observed from these vicissitudes, than what might naturally have been expected, an aggravation of the symptoms when the change was from hot to cold. Dr. Green, of Bainbridge, Ohio, who happened in my office while engaged in writing this essay, says that he has observed putrid sore throat to prevail in his vicinity during the fall and spring, when the weather was cold and damp, that he saw the most cases along the bottom lands of Paint creek, and some few in the 'beach flats' in the vicinity of Bainbridge.

Concerning the sex most liable to this complaint, the opinions are various. *Hippocrates*, in describing an *Epidemical Constitution*, in which anginas, coughs, and pluro-pneumonias were frequent, says that men were most liable to angina, and the reason he gives is, "because they were more abroad than women, and therefore more subject to injuries of the air." *Riverius* thinks also that men are the most subject, and gives as a reason of this, that "women have a *colder blood*, a *less larynx*, and narrower veins of the throat, for which reason these parts do not easily receive defluxions." Modern writers have observed sometimes a preponderance in favor of males; and at other times in favor of females, making, as we believe, if the accounts were all compared, no difference as it regards predisposition to the complaint. We may now sum up the following circumstances as favorable to the prevalence of this malady:

1. The cold, humid weather of the fall and spring.

2. Localities characterized by a low range of the barometer.

3. Habits of the weak effeminate kind, with some constitutional derangement of the system.

4. 'The springs of life,' that development of the nervous system found in children.

These having characterized its prevalence in past times, may be confidently expected to have some relation with it in the future.

Into a consideration of the *contagious* character of this disease we do not design to enter, further than to remark, that Huxham regarded it as being highly contagious; and from what we witnessed of its prevalence it seemed to have a close resemblance in its origin and propagation to typhus fever. One thing is very certain, that the peculiar virus, by which it is communicated from one individual to another, displays a striking preference for children; and where it does invade the system of an adult, its effects are generally mild. That severe cases attended with much putridity may elaborate a virus adequate to produce the disorder in others, much exposed to its influence, seems pretty evident from analogy, as well as from the fact, that the two mothers, to whom allusion has heretofore been made, contracted the disorder after having waited upon their children.

As it regards the proper pathology of this disease, physicians have always been much perplexed. While some seem to think all the lesions due to a fever of the typhoid kind, others there are that regard it as a local affection, either of the skin, mucous membranes generally, or of the mucous membrane lining the mouth, and consider the febrile orgasm as be-being exclusively symptomatic. This diversity of opinion grows, in part, out of the insidious and obscure manner in which many cases are invaded by the remote cause. Not universally, but commonly the cases falling under our notice have been ushered in with the premonitory symptoms of fever, such as languor, muscular debility, cephalalgia, aching of the bones, and chilliness. To these a fever very much like

the typhus mitior of Cullen succeeded. The febrile excitement in adults was slight. In children, on the contrary, it was sometimes violent; and, in both adults and children it always appeared to be proportionate to the structural changes in the throat which accompanied the disease, or with which it was complicated. The pulse in the adults was soft, frequent occasionally, but in no case indicated the use of the lancet. In the children it was, with few exceptions, frequent, small, and sometimes very irritable. The tongue generally was foul.

PHYSICAL CONDITION OF THE GENERAL SURFACE.

The functions of the skin were more or less deranged in all the cases we witnessed. Sometimes dry when the febrile excitement was considerable, at other times bathed with a clammy offensive perspiration, *but in no case covered with an eruption.* This negative symptom, I am aware, does not correspond with the observations of the generality of writers. In his *Dissertation* on this affection, Huxham says, some had a cuticular eruption, others had none; sometimes the eruption was of the pustular, then again of the erysipelatous kind. Ball, in speaking of this disease, says, it was occasionally characterized by an erysipelatous eruption on various parts of the body. Neither Sydenham, Boerhaave, nor Van Sueiten gives any account of eruptions attending the quinsies or anginas of which they speak. Swan, Sydenham's commentator, however, describes an *external* species of quinsy, which "extended towards the eyes, and chiefly possessed the external muscular and glandular parts." Thomas says, "there was a dark colored eruption in some cases, which is an unfavorable symptom." Eberle says the eruption comes out at uncertain periods, from the second to the fourth day, and is usually pale when it first makes its appearance, acquiring in most instances a dark or livid hue. Cullen witnessed an eruption after the disease had progressed for a few days. Gregory and McIntosh observed eruptions on the skin in this disease; and both, regarding the efflorescence which takes place in all

eruptive fevers, as a kind of blistering process instituted by the *vis medicatrix naturæ* for the relief of these disorders, considered the fatality attending many cases to be due to a want of appearance of the eruption. Dr. Warfield, of Paris, Kentucky, describes an epidemic angina, (in the first volume of the Western Journal) as it prevailed in his vicinity, and says "not a single case was attended with efflorescence." Of the practitioners of medicine in Ohio with whom I have conversed, some have seen the disease prevail with and some without an eruption. From these authorities it appears that the eruption is by no means a constant attendant on this complaint. But what seems most difficult is the estimation we should place upon it, as an element of the pathology. That it is a mere symptom in this affection, as well as in eruptive fevers in general, constituting no part of the pathology of any of them, McIntosh seems very certain. Against this opinion objections might not be very successfully urged. But to make the eruption both a symptom, indicating merely the existence of disease, and also a means instituted by nature for the relief of the disease, seems to us like confounding symptoms and remedies together. Without pretending to criticise Dr. McIntosh on this subject, it may be remarked, that among most writers there seems to be a supposition that the eruption, some how or other, is connected with the pathology; and when it fails to make its appearance they regard the equilibrium of the disease as being destroyed; and imagine that all the distress following a bad case proceeds from congestions, and the centripetal direction of the fluids to the deep-seated organs of the body: hence the efforts usually made with the warm bath, frictions, etc., to invite the excitement to the surface. These views, no less than those of Dr. McIntosh, become, so far as *angina maligna* is concerned, very much unsettled, from the fact that many of the mildest cases of the complaint are unattended with any eruption whatever. And, even in those where the eruption does actually exist, it is so diversified in character and extent, resembling at times erysipelas, petechia, or erythema, that its appearance or disappearance, unlike

what generally takes place in measles or scarlatina, is accompanied by no very obvious modification of the malady. From these considerations we infer, 1. that the disease may prevail accompanied with eruptions of various kinds, or it may prevail without any at all; 2. that the eruption bears, when present, about the same relation to the disease that the petechia, sudamina, etc., do to typhus fever.

In the anatomical condition of the stomato-pharyngian mucous membrane, is, perhaps, exhibited the most important elements in the pathology of this disease. Upon this point the enemy concentrates and marshals its strength, not only for destruction here, but for the invasion of other parts of the body. Not many days usually elapsed after the first sensations of indisposition until the throat became the seat of pain, burning sensations and unnatural dryness. In some instances the disease first manifested itself in the throat. Inspection of the parts, soon after the patient would commence complaining, showed the mouth and fauces to be affected with various degrees of hyperemia or inflammation. The mucous membrane, in a few cases, presented rather a bright red appearance. But in the majority it was *dark* from the commencement, and seemed most intense where it covered the velum pendulum palati, the uvula, and tonsils. After lasting a few days in the mere form of palatitis, uvulitis, or tonsilitis, the urgency of the symptoms in a few cases, principally adults, subsided without any obvious alterations in the structure of the mucous membrane. It was, however, very liable to return upon physical exertions, which I found to be a powerful, and very common exciting cause; or imprudent exposure to bad weather, cold, damp air, &c. Cases of this kind were more or less subject to relapses for months after they had contracted the malady; but, contrary to what might *a priori* have been expected, the relapses were attended with no increase in the malignity of the symptoms. In some cases of children where the disease was ushered in by even considerable febrile excitement, the fauces assumed that tumefied dark red aspect, termed in former times "*defluxions*," but in our

day passive inflammation, or asthenic hyperemia. The presence of too much venous, and the seeming absence of all arterial blood in the parts is perhaps what gives rise to this condition. Continuing, for a longer or shorter time, to increase in darkness and tumefaction, the integrity of the mucous membrane at last became assailed in a way that ultimated in gangrene and the death of the parts most affected, giving rise to ulcers on the tonsils, velum pendulum palati, or uvula. In some instances the ulcerative process, in spite of remedies, continued until it had eaten off large portions of the soft parts in the fauces. These ulcers generally first made their appearance on the mucous membrane reflected over the tonsils, and extended from here to the velum and uvula, and sometimes into the larynx, giving rise to dysphagia and partial aphonia. I saw several children afflicted with this form of the disease in whom the swelling or hypertrophy of the tonsils and glands on the side of the neck was so great as nearly to close up the air-passages. Upon the tonsils and contiguous parts were frequently observed small patches of an ash-colored false membrane, under which was sometimes concealed the commencement of these malignant ulcers. These cases pretty generally went to a fatal issue from suffocation. The fatal event was sometimes preceded with restlessness, anxious expression of the countenance, a livid color of the lips and more or less ronchus. Other cases, however, died very suddenly without betraying any suffering at all in the last moments. One child, after having conversed with its mother, turned over in the bed, and in a few seconds was dead. Two others who were possessed of sufficient muscular energy to stand up at the table while the family were at dinner died in the evening of the same day, with but slight distress in the function of respiration. The fatality of these cases, inasmuch as the secretion of false membrane was inconsiderable, doubtless depended upon the ulcerative and gangrenous processes extending into the larynx, trachea, œsophagus, and contiguous cellular tissue. Dr. Morris, in the *Quarterly Summary of the College of Physicians of Philadelphia*, gives a case in which the

symptoms were somewhat similar to those we have described. In this case the *sectio cadaveris* revealed an abscess, situated between the œsophagus and vertebra, which contained about half an ounce of purulent matter. Dr. Ballot, physician to the Hospital of Gien, reports an analogous case. On the anterior face of the vertebral column, and in contact with the posterior coat of the œsophagus, was found a collection of white well-concocted pus. Other cases of a similar nature have been referred to by different writers, under the name of *retro-pharyngeal* or *retro-œsophageal abscess.* To structural alterations of this kind, are due many of those cases of ulcerous sore-throat, which have an obscure yet fatal termination, and in which, during life, there is nothing discoverable to which such a grave and sudden issue could, with any reason, be ascribed.

The most interesting, because the most fatal form of this disease as it manifested itself in the fauces has yet to be described. The commencement and progress differ in no very material manner from the other forms to which we have adverted. There is likely more fever, and the fauces in the forming stage of the malady are of a brighter color. At uncertain periods in the progress, sometimes after the third or fourth day, or even later, there is thrown out upon the stomato-pharyngean mucous membrane a membraniform exudation, which, showing itself first upon the tonsils, gradually extends over the fauces and sometimes to the air-passages, œsophagus, nasal fossæ, external auditory duct, or the temporal surface of the concha. "The first symptom we observe," says Andral, "is a number of red dots or streaks scattered over the surface of the mucous membrane, which does not in general present any remarkable degree of tumefaction. Sometimes, however, from the very onset of the disease the surrounding cellular tissue is congested, and the submaxillary lymphatic ganglions are considerably swelled. The red appearance of the membrane is, after a longer or shorter interval, succeeded by a set of white spots, which are at first isolated and seem to exist chiefly in the follicles, but afterwards multiply, enlarge, touch, and at

last run together, so as to form a uniform layer of greater or less extent. Sometimes there are several patches; and sometimes there is only one, which covers a vast space and is continually extending itself. The thickness of this layer is variable; it is occasionally thick enough to be in some degree transparent. One of its surfaces is free; the other, which adheres to the mucous membrane, presents a great many processes which dip into the mucous follicles. Its color is generally white, but it is sometimes grayish and soiled by the blood exhaled by the mucous membrane which gives to it an ashy tint; that, together with the extreme fetor of the secretion, has often caused such patches to be taken for sloughs of the mucous membrane. At other times patches of small extent, and lying lower than the surrounding mucous membrane, have been mistaken for ulcers." To this form of the disease modern writers, upon the supposition that it was a distinct disease, have applied various names, as *angina membranacea*, *angina pultacea*, or *casei formis*, (*Guersent*,) or *diptheritis*, (*Bretonneau*.)

In the refinements of medical nomenclature many might suppose that these terms indicated, not merely a form or variety of putrid sore-throat, but a distinct disease, having an identity of its own, and demanding for its relief a corresponding difference in the treatment. Apprehensive as we are that the former, much more than the latter, of these suppositions is not founded upon a correct consideration of the different morbid phases assumed by putrid sore-throat, we shall not, however, insist upon this point at the present, but shall remark, that while we witnessed more or less of this membranous exudation in the fauces of the majority of our patients, there were four of the twenty-two, to whom we have previously referred, in whom it extended into the larynx, producing *secondary croup*, or the *diptheritis* of Bretonneau. These four cases were all under ten years of age; and among the best in constitution and habit of any of the cases we witnessed. The anginose symptoms were tolerably urgent from the beginning, though I think without any ulceration of the fauces.

There were more fever and restlessness than usual after the signs of distress in the larynx were manifested. Coming on very insidiously, the exact period from the commencement of the disease at which the secretion in the larynx took place, could not be ascertained. Perhaps it was not until four or five days had elapsed; and in two cases there was no unusual trouble in the larynx for two weeks. Seated once in the larynx the circulation, sooner or later, becomes frequent and irritable, the face flushed, and the eyes suffused, with the cough and respiration peculiar to croup. The treatment was varied in all these cases so as to suit the indication, but they all died; and this, so far as we have learned, has generally been the issue of similar cases in the hands of other practitioners. Indeed, when the disease takes this turn, it may be looked upon as being necessarily fatal, since nothing but an accidental expulsion of the membrane, or an operation upon the trachea, could be looked upon as promising a *chance* of escape; and when we consider the extreme improbability of the one, and the uncertainty in the results of the other, all hope is entirely diminished. We shall now, therefore, briefly consider some of the circumstances connected with the secretion of this morbid production.

Properly considered the appearance of false membrane in any part of the body must be looked upon as a *lesion of secretion*, as the product of an organic action more or less analogous to that, which, in the healthy state, separates from the blood the materials for repairing the several tissues or forming the different secretions, (Andral.) And according to elementary writers on pathology, the secretion of false membrane is more or less influenced, 1. by *the state of the blood*; 2. *by the condition of the solids, where the secretion takes place; and* 3. *by the nervous system.* Huxham says that he found the blood so soft and loose that you might cut it with a feather, giving off little or no serum. 'In some cases the blood first drawn by this author was covered with a "*thin whitish*, or *lead-colored skin;* but under this there was a *greenish soft kind of jelly*, and at the bottom a very *loose black kind of crassa-*

mentum scarcely at all cohering." A thin dissolved and incoagulable blood seemed to be characteristic of the disease in former times; but whether this is the condition of the blood most favorable to the secretion of false membranes, the chief constituent of which appears to be *fibrine*, is a question that must be settled by future research. The "*thin lead-colored skin*" observed by Huxham on the blood of some of his patients owed its existence, no doubt, to the same cause which gives rise to the buffy coat in chlorotic patients, viz: excess of fibrine in proportion to the number of globules. Why is it that this fibrine is secreted from the blood and made to assume, on parts in a state of irritation, the form of false membrane? Is it that the relative constituents of the blood may become balanced, so as to approximate to something like the normal standard? About all we know concerning the condition of the solids, before and while the secretion of false membrane is going on, is that the parts must be in a state of irritation, or hyperemia. Formerly it was supposed that the ash-colored patches observed in the fauces, were a kind of slough proceeding from an ulcerative process. This, however, is not the case, for in most of the cases where false membrane makes its appearance the integrity of the parts beneath it seems preserved. Indeed, the membrane in some cases may be peeled off, leaving the mucous surfaces below without any apparent abrasion. The secretion of false membrane, we are aware, does not occur with most facility in those cases in which the fauces assume a very dark red appearance from the beginning, called "*asthenic hyperemia;*" these cases being more disposed to run into gangrene and ulceration. It is a color a shade brighter than these that is most favorable to the secretion.

Of the condition of the nervous system most favorable to the development of false membranes on the mucous surfaces, we know little or nothing. There is in most cases of putrid sore-throat, before and after the appearance of false membranes, an adynamic disposition of the general system similar to what we have in typhus fever. This perhaps should be

regarded as the result of a lesion of innervation, in which the nervous forces, from some influence exerted upon them by the remote cause, cease, in a measure, to exercise that resistance to the affinities of inorganic matter, that are really necessary to preserve the blood in a normal condition, and keep, in severe cases, the local parts most diseased from passing into a state of gangrene and death. With more certainty, however, we know that these alterations occur with most facility during the period of life in which the nervous system is not perfected, but exists in a progressive state of development. The few cases we witnessed, in persons advanced in life, were unattended with any membraniform exudation, either in the fauces or air-passages, while among the children, and to some extent those bordering upon puberty, the phenomenon was by no means unusual; and hence this circumstance, at any rate, may be regarded as having a close relation to the occurrence of this morbid production.

From some considerable research on the portion of the alimentary canal most liable to this secretion, it has been discovered that the supra-diaphragmatic is more frequently affected than the infra-diaphragmatic portion. Of two hundred and fourteen cases of aphthæ observed, in the *Hospital des Enfans-Trouves*, by M. Billard, during the year of 1826, false membranes were found in the stomachs of but three, and in the intestines of but two. M. Lelut, who wrote a work on aphthæ, saw them seldom in the stomach and never in the intestines. The case of a girl twelve years of age is given by Andral, in whom not only the air-passages were lined with false membrane, but they were also discovered in the pharynx, œsophagus, and *stomach*. Aphthæ, although it differs very considerably from putrid sore-throat, may, nevertheless, from some points of analogy, serve partially to illustrate the relative predisposition of the different portions of the alimentary canal in the latter disease to this morbid secretion.

Formerly it was supposed that *albumen* was the chief constituent in the composition of false membranes. Recent research, though, by M. Lassaigne, seems to throw additional

light on this interesting subject. "I have already," says he, "shown that the false membranes, which are thrown out on mucous membranes in a high state of inflammation, are not composed of coagulated *albumen*, as many anatomists have supposed; but formed chiefly of a large proportion of *fibrine* mixed with some soluble albumen, and moistened by a yellow-colored serum, containing all the organic and inorganic elements of the blood. I have more recently examined the false membrane of a pig, laboring under pseudo-membranous angina, and obtained the same results. The false membranes obtained from this source were white, with a yellowish-colored tinge, slightly elastic and extensible." On submitting them to pressure a yellowish-colored fluid was obtained which turned test paper blue, and coagulated under the influence of heat and the mineral acids. Having washed a portion of the false membrane in cold water, to remove all the soluble matter, our author found that the residuum was a white substance presenting all the physical and chemical characters of fibrine extracted from the blood. Digested with weak acetic acid it became swollen, then transparent, and on the application of gentle heat was entirely dissolved. When saturated with caustic potassa, the solution threw down white flocci which were again dissolved by an excess of the alkali. The nitric, sulphuric, and muriatic acids, threw down a white precipitate, as they do with the acetic solution of fibrine. Having evaporated the water in which the false membranes were washed, there remained flocci of coagulated albumen; the evaporation being continued until there was dryness, a saline residuum remained, composed of chloride of sodium, carbonate and lactate and phosphate of soda, salts which exist in solution in the serum of the blood.

Formed either on the mucous or serous membranes, the substance of which false membrane is composed is capable of becoming organized. The tendency to organization is much less marked on the mucous than on the serous membranes. In relation to this process the first phenomenon observed is, that the membrane becomes injected with blood. Andral says

a question might be started here to know how this fluid gets into its new situation; whether it is absolutely formed in the membrane, or whether it is brought there by vessels which shoot into it from the surrounding tissues. Advocates there are for both of these hypotheses; and from the facts adduced in support of each of them we may conclude, 1. that there is some blood in false membranes not contained in blood vessels at all, but irregularly scattered through their substance in dots or lines; 2. that vessels have been discovered pervading them which do not communicate with those of the surrounding tissues; 3. other vessels have been discovered which seem to proceed from those of the surrounding tissues; or rather the vessels of the parts upon which the false membranes are situated appear to be extended into them. The manner now in which the circulation commences is, that, either in the organizable matter, or in points where it adheres to the membrane, or in that membrane itself, there must begin to move some globules which, after proceeding in various directions, and tracing out passages for themselves, shall end by falling into currents already long established. (*Andral.*)

Besides the presence of blood vessels in false membranes, there are, according to *Prof. Vanderkelk of Utrencht*, very good reasons for believing in the existence also of *lymphatics.* This author refers to a case in which the pleura had been inflamed and had thrown out coagulable lymph, which, by a considerable bridle, connected it with a part of the diaphragm. The surface of this connection was not less than an inch or two in extent, and the bridle varied from a quarter of an inch to an inch in length. The lymphatics of these parts having been injected with quicksilver, the vessels of this system belonging to the lungs and pleura were very conspicuous; not less so those of the diaphragm; and not less apparent than either, were *distinct beaded lymphatics, running along the effused membranes connecting the two normal tissues.*

Nobody, so far as we are acquainted, has yet discovered any nerves in these adventitious membranes. When this is done, and we see no good reason why it should not be, all the

prerequisites will be present for an exhibition of the common phenomena of vitality. That nerves do exist in them, might be concluded *a posteriori* from the fact, that the function of circulation, in the present state of our knowledge, stands in the relation of effect to that of innervation; and to us the presence of one necessarily implies the existence of the other. Indeed, without the presence of the nervous influence in these membranes, the vascular system could not be developed, nor could the fluids be circulated through them. Speculative as this may appear, it has nevertheless a degree of probability in its favor, that, sooner or later, we believe, will be made to assume the character of demonstration.

We have been thus prolix in our consideration of these false membranes, because whether regarded in the light of an occasional complication of putrid sore-throat, or as a part of the disease itself, they cannot fail, when present, to excite in the mind of the practitioner the keenest solicitude for the welfare of his patient. And well this may be the case; for from my own limited experience, and what I have gathered from other practitioners of medicine, I conclude, that no small part of the mortality attendant on this truly mortal disease, is referable to the presence of this morbid exudation. And when it is recollected that but few cases occur in which it is not more or less developed in some part or other of the alimentary canal or air-passages; and that it is liable at any stage of the malady to extend to some vital part and produce death, a reason may be seen, why even an elaborate consideration of the subject could not fail to prove interesting.

Before we conclude what we have to say, a brief review of the points insisted upon in the foregoing inquiry will now be submitted.

1. The appearance of false membranes on the mucous surfaces of any part of the body, is the result of an alteration of their secretory process.

2. There is a striking alteration of the blood connected with cases of putrid sore-throat in which false membrane is secreted, consisting, most probably, in a deficiency of globules, which gives rise to its dissolved putrid appearance.

3. The only known condition of the solids upon which the false membrane makes its appearance, is inflammation.

4. In general there is no abrasion of the mucous surfaces from which the membrane takes its rise, though in a few cases ulcers under the false membrane have been discovered.

5. That development of the nervous system found in children, and in those under the age of puberty, seems most favorable to this secretion.

6. The portion of the alimentary canal most predisposed is the supra-diaphragmatic.

7. The chief chemical constituent is *fibrine.*

8. Arteries, veins, and lymphatics have been demonstrated to exist in these adventitious membranes, and they are probably endowed also with nerves.

Diagnosis.—Having discussed some of the more important lesions connected with *angina maligna* or putrid sore-throat, we will now institute a brief comparison between it and scarlet fever, that we may see in what respects the two diseases agree. We are induced to do this because some of the more modern writers, including Thomas, Rush, McIntosh, and Eberle, have regarded putrid sore-throat as a mere variety of scarlatina, having no claims whatever to the character of a specific disease; and consequently demanding for its treatment nothing but a modification of that proper for the latter malady. Viewed in several aspects, the two diseases present quite a similarity. 1. They both prevail mostly during the variable weather of fall and spring; 2. to both diseases children are the most liable; 3. both may prevail with an eruption; 4. both are reputed to be more or less contagious; 5. there are anatomical lesions of the throat in both diseases, and each at times is complicated with membraniform concretions. There are points in which, between the two diseases, there seems to be something like a unity of diseased actions. Desirous to avoid making distinctions where there is no difference, we, nevertheless, in order to take an impartial view of this subject, are compelled to a brief consideration of some facts in connection with the origin and progress of these two

diseases, which may go, to a greater or less extent, to exhibit a contrast.

1. Although it is mentioned by some writers, Thomas among the rest, that the two diseases are alike, because they prevail together, some children of a family having one form or variety and some the other, we confess, notwithstanding we have witnessed several epidemics of scarlatina, that we have not yet witnessed one of these in which there were any well marked cases of putrid sore-throat. True a great many cases, during the prevalence of an epidemic scarlatina, may have the anginose variety of the disease in a very malignant form; and instances of this kind we have frequently witnessed; but such cases, in our estimation, contrasted very strongly with putrid sore-throat. On the other hand, when we have had cases of sore-throat occurring, either sporadically or epidemically, no scarlet fever, so far as we ever knew, was prevailing in the neighborhood at the time.

2. Adults, as a general rule, escape scarlatina. At any rate we are acquainted with no instance in which, as an epidemic, it displayed towards them anything like a total preference. In the epidemics of membranous angina which prevailed during successive years, from 1813 to 1816, in so many parts of the United States, adults, and those advanced in life, were the greatest sufferers. And although this may be looked upon as a striking departure of the disease from that class upon whom it is most predisposed to fall, and in whose systems it most delights to ravage, still there is something in even these instances of its prevalence, that creates doubts concerning its identity with a disease that observes no such pathological habitudes in regard to age.

3. Prominent among the pathological conditions of putrid sore-throat are the exudations of lymph, for not only in the fauces, but also in a number of cases this lymph makes its appearance during some period or other in the larynx or trachea, and thus becomes one of the most portending symptoms by which the disease can be characterized. These anatomical peculiarities, so far as the larynx and trachea are concerned,

are said to be wanting in scarlet fever. Rayer says that although the exudations of lymph often extend to the lateral parts of the pharynx, and occasionally as far as the œsophagus, they are never observed after death in the larynx or trachea. The testimony of Dr. Tweedie is equally decisive on this point. In all the dissections he has made in scarlatina with anginose inflammation, no instance has occurred of finding in the larynx or trachea any membranous exudations. Has anybody ever observed a well-marked case of scarlatina terminate in croup?

4. Both diseases being characterized occasionally with an eruption, this, perhaps, if properly considered, may go to throw some light on the diagnosis of the two maladies. Scarlet fever of any variety, when it is marked by an eruption, preserves about the same degree of uniformity in the character of the eruption, as does either measles or small-pox. It is always the same eruption, varying, however, in hue and copiousness. Constantly, indeed, it consists in a diffused erythematous blush, and the lesions of the skin or efflorescence have always the appearance of not being raised above the cuticle. Whether the efflorescence be fiery or consist merely of dark purplish stains, the integrity of the phenomena mentioned above are preserved. If, now, we can place any reliance on the observations of our best authors on putrid sore-throat, the eruptions with which it has been characterized have had nothing like a uniformity of appearance. "Some," says Huxham, "had a "*cuticular* eruption, others had it of the *erysipelatous* kind; in others it was *pustular*." Ball speaks of the eruption as being *erysipelatous*. Thomas observed a dark-colored eruption, which he regarded as being unfavorable. Eberle says the eruption at first is *pale*, acquiring in most instances during the progress of the disease a *dark* or *livid* hue. These are examples sufficient to show that the alterations which take place in the skin preserve no identity of appearance; but, on the contrary, resemble those found in typhus fever fully as much as those peculiar to scarlet fever. This being the case we cannot see the propriety of classing putrid

sore-throat with the exanthemata or eruptive fevers. Still further the reasons for this will diminish when it is recollected that the eruptions of putrid sore-throat are by no means of constant attendance in the epidemic visitations of the disease. In the Western Journal, (vol., 1) Dr. Warfield, of Paris, Ky., gives an account of an epidemic sore-throat which visited his neighborhood in 1821, in which not a single case was characterized with an eruption. Of the cases we have witnessed, none have been characterized with eruptions. Modern writers generally agree in the fact that the eruption is not at all of constant occurrence; and we know that this is, to a limited extent, the case with the proper eruptive fevers including scarlatina. But has ever any of the eruptive fevers been observed to prevail as epidemics *sine eruptione*, as we have just seen has been the case in regard to sore-throat?

5. Scarlatina, as well as measles and small-pox, by pretty general consent, destroys the susceptibility of the system to a second attack. Of the cases reported in this paper *four had been, two years previously to their illness with sore-throat, afflicted with scarlet fever.* These cases all belonged to the same family, all suffered their attacks of scarlatina at about the same time, and all were seized within a few days of each other with putrid sore-throat. I obtained the information of their having had the scarlet from the father, and from what I learned of him it was of the simple variety of the disease attended with a copious eruption and some distress of the throat. There are some pretty well authenticated instances on record where the same person has had scarlatina twice, (Beckner, Newman, Binns;) and Richter says that cases, not only of a second, but even of a third attack, have been noticed. Respectable as the testimony is to this point, we are nevertheless inclined to the opinions of Withering, Bateman, and Willan, who deny the possibility of a second attack. Cases we have witnessed ourselves, where, from some cause or other, the dregs of disease, left in the system, after a first attack, have continued, upon exposure to exciting causes, to revive some of the worst symptoms in the fauces for years

afterwards, and it may be that it is these which have been mistaken for a secondary occurrence of the malady. Waiving, however, the further discussion of this question, we may remark that the instances of a secondary attack must be exceedingly rare; and this being the case it would be a very strange coincidence that four of such cases should take place in the same family, and all, too, at about the same time.

6. Most diseases attended with fever have something peculiar in the excitement with which they are characterized. In this respect synochus fever differs very widely from typhus. Great now, as all regard this difference, it is not more than equal to that observed between scarlatina proper and putrid sore throat. In the former the fever is generally of the synochus grade; in the latter it more nearly resembles typhus. Nor does the fact that scarlatina, once in a while, varies from this grade, becoming congestive or adynamic, alter at all the matter at issue, for we frequently see fevers of an inflammatory grade after going through the acute stages, from some peculiarity in the system or the circumstances with which the patient is surrounded, pass into a typhoid or putrid stage, that demands a total change in the treatment. Circumstances of this kind are of frequent occurrence in the experience of every physician; but no one because of this would regard the two diseases as being identical. Hence the excitement peculiar to sore throat may at any rate be regarded as being of sufficient importance to give it a respectable place among the diagnostic features of the two diseases.

7. Considered as an element of diagnosis, the effects of remedies may throw some light on the difference between these two diseases. Bloodletting has been regarded as a very available agent in most cases of scarlatina; particularly in those where the action of the heart and arteries is great. Most practitioners as well as writers speak of its effects in terms bordering on praise. This is not the case as it regards putrid sore throat. Here many writers, from Huxham down to our latest and best, unite upon the position that abstrac-

tions from the vital current are of doubtful propriety during even the first stage, while at any other period of the malady they manifestly do harm. In scarlet fever too, there is more or less tolerance to the loss of blood, when as a therapeutic agent it is but slightly indicated, while in putrid sore throat one bleeding often precipitates the patient into an irrevocable state of debility. Again the evacuant and depletive medicines so frequently resorted to in the treatment of scarlet fever find but little favor in sore throat. The best writers that we have consulted come to the conclusion that in sore throat sustaining and strengthening medicines to the general system are those upon which most reliance can be placed. These, indeed, as we shall see when we come to the treatment, are among the principal means by which the disease can be treated with any prospect of being subdued.

In concluding our remarks on this part of our subject, it may be submitted *in limine:*

1. That the two diseases seldom, if ever, prevail together, putrid sore throat being as liable to prevail with other epidemics as it is with scarlet fever.

2. That scarlet fever is confined pretty much to children, while putrid sore throat sometimes prevails as an epidemic among adults.

3. That the exudations of coagulable lymph, which we see in sore throat, extending, occasionally, to the larynx and trachea, producing *diptheritis* or secondary croup, is never found in these situations in scarlatina.

4. That the eruption in scarlet fever has a constant appearance, while in sore throat it varies, being, as often as any other way, *erysipelatous* or *pustular.*

5. That the diathesis is rather phlogistic in scarlatina; in sore throat it is the opposite, the former being attended with a synochus, the latter with a typhoid fever.

6. That medicines, depletive and evacuant succeed in scarlet fever, while in sore throat there is great necessity for sustaining and strengthening medicines.

Before leaving this division of our subject, we might say something on the question, of which we have already partially spoken, brought forward by M. Bretonneau. This learned pathologist, having witnessed an epidemic of sore throat, in which a large proportion of the cases were affected with that variety of disease called *angina membranacea;* and having found from the symptoms during the last stage, as well as from dissections, that a very prominent cause of mortality was false membranes in the air passages, concluded that the disease was identical with croup, *cynanche trachealis.* It constitutes no part of our present design to give this question a formal consideration. By the way, however, we may remark, that those who have practised extensively in sporadic croup, and noticed its etiology, course, and the effects of remedies upon it, will have use for but little from our pen in order to make up a decision. It might be said to those who have had but little experience in croup, that it has pretty high claims to the consideration of a distinct specific disease, having no symptoms nor anatomical characteristics in common with sore throat, further than the accretions of false membrane occasionally found in both diseases. But inflammation being the only known pathological condition necessary to the secretion of these heterologous productions, they may occur in any other disease, as well as in croup, where during the course of the disease the mucous membrane is either primarily or secondarily involved in this state. Hence the impropriety of making them pathognomonic, as the French author has done, in any disease. What is of occasional, he has insisted upon as being of constant, occurrence. But this would not hold good as it regards croup. Of all the cases of that disease which we have witnessed, three-fourths, we would suppose, were free from any morbid accretions in the larynx or trachea, the disease being spasmodic or inflammatory. This too, as we have already seen, has been the case in sore throat. Hence the presence of these false membranes is not necessary to the existence of either of the diseases; and we conclude that it would be about as reasonable to give remittent fe-

ver some new name or other, because it is occasionally complicated with visceral inflammation, as to give to putrid sore throat the name of *diptheritis* because it is occasionally attended with false membranes.

Sequelæ.—Without devoting any further remarks to diagnosis, we will now proceed to consider some of the conseqences entailed upon the system in cases where the disease has been of a malignant character, or where it has yielded imperfectly to the remedies addressed for its removal.

Enlarged or *hypertrophied tonsils*, we have witnessed oftener, than any other consequence of the malady. Without doubt this is owing to the conspicuous place which these glands have in the pathology. No case of any intensity takes place but what they are either highly inflamed, or are the seat of false membrane. Neither of these states, however, favors an enlargement of the tonsils so much as the ulcerative process with which they are occasionally affected. It is this process which seems to infuse the morbid growth upon which the enlargement depends. Once in a while, the glands become enlarged during the progress of ulceration; but most generally it is after the ulcers have imperfectly healed, when on slight exposures to cold or damp air, they again become inflamed, and after repeated attacks of this kind, they at last become permanently enlarged. The extent of the enlargement varies from the mere appearance, to a size sufficient to fill up almost entirely the lateral half arches of the palate. Among the various disturbances which accrue to the system from enlarged tonsils, none, perhaps, are more urgent, than the troublesome cough created, by which the stamina of the constitution is gradually undermined and the foundation sometimes laid for disease of the chest. Dysphagia also follows enlarged tonsils and makes it sometimes necessary for the patient to live entirely on fluids. These, in connection with the morbid secretions from the tonsils and the fauces, which are generally swallowed by children, and

thus disorder the digestive aparatus, go to make a very grave complaint, and one to which medicines are applied, in the general, with but little success. Spontaneous mitigation, from a favorable set of circumstances, or extraordinary vigor of constitution, sometimes takes place, though this is a result of such seldom occurrence that it cannot be hoped for with any degree of confidence. Mention is made by authors of iodine, when the habit is scrofulous, of the chalybeate preparations, tepid salt baths, and of local applications of nitrate of silver, and butter of antimony, &c., all of which in their place may be tried; but we are satisfied, when the glands are considerably enlarged, that the most successful way of getting rid of them, is to invoke the aid of surgery. Ligature or excision, neither of which is attended with danger, will speedily dissipate the urgent symptoms and bring back the patient's health.

Deafness is frequently the result of enlarged tonsils. This depends most likely upon the inflammation or perhaps secretions of false membranes extending into the Eustachian tubes, by which their calibres become blocked up, and the transmission of sound is thus prevented. Accumulations of mucus, in these tubes, from those catarrhal affections that often follow attacks of sore throat, became, I have no doubt, an occasional cause of deafness, or impeded hearing. When the deafness depends upon the accumulations of mucus in the Eustachian tubes, emetics, or errhines, or indeed any thing that will excite sudden and violent motion in the parts, would seem to be indicated. Of the means for the relief of the more confirmed cases depending upon hypertrophy of the mucous lining of the tubes, or the secretions of false membrane within their calibre, we know nothing from experience; but in cases of this kind we are inclined to think favorably of the Eustachian catheter of Wathen, or the injection of compressed air as performed by Deleau.

Thickened and *nasal* speech are consequences that, once in a while, follow hypertrophy of the tonsils. When these

take place, nothing short of excising the diseased glands will do much good, either in the way of palliation or cure.

Besides enlarged tonsils and their incidental consequences, we have sometimes left upon the fauces, after an attack of putrid sore throat, a species of chronic inflammation, or in some cases only a preternatural susceptibility of the mucous membrane in these parts to inflammation, which may be looked upon, as being a sequel of more frequent occurrence than enlarged tonsils. More than half of all the patients that we have had charge of, with putrid sore throat, were subsequently affected with this troublesome kind of inflammation. Slight catarrhal attacks operated very favorably to its supervention, though followed with equal facility in cases complicated with measles and pertussis. Anything, however, with some patients, even the slightest indispositions, were adequate to stir up an irritation in the fauces that would last for weeks. Mild cases yielded tolerably well to the common capsicum gargle. When this failed, muriatic acid and nitrate of silver were called into requisition. Temporarily subdued, as proved to be the case sometimes, even with these means, the disease would return to run its course again, and again subside upon the use of a similar prescription. Outraged, however, in the use of medicines to the parts, the physician at last will find a very available resource in scarifications of mucous membranes. I succeeded in one case by scarifying after some of the more potent agents of the materia medica had failed. This is most applicable to those cases attended with heat or burning sensations in the fauces. In such it produces prompt relief of the painful sensations; and thus the parts being to some extent relieved of the exciting cause of irritation, assume a better appearance, and seem much more amenable to the use of gargles.

These, in connection with the debilitated condition of the general system, and the depraved condition of the secretions, particularly of the mouth, which not unfrequently last for a long time after an attack of the malady, are only among the more urgent of the sequelæ. Others of a less frequent char-

acter, but sufficiently troublesome, have been met with, by those who have had much to do with the complaint.

Duration.—The length of time which putrid sore throat occupies in running its course varies according to circumstances. A good vigorous constitution, capable of resisting the putrid tendency of the disease confines the period of its possession of the system to its shortest limits. With individuals, particularly children of a lymphatic temperament or scrofulous diathesis, the disease delights to dwell. Lurking upon them in the form of diseased tonsils, or chronic inflammation or ulceration of the mucous membrane of the mouth, pharynx, larynx, trachea, œsophagus, it may last for a long time, to harrass and wear away the energies of the patient and foil the best directed efforts of the physician. Truly we may say, there is nothing more uncertain than the arrival of that period, at which there is, from all diseased action, a perfect exemption. Many cases get well in a week or ten days, while others, complicated with the affections, so prone to follow, may last for months. Excepting those cases, in which there is merely an inflammation of the fauces, we will find that the disease runs its course in those complicated with false membranes in the larynx or trachea in the shortest period of time. These cases, however, do not, so far as our experience is concerned, end in convalescence. Death is the usual result; and this happens after there is evidence of these membranes in the larynx or trachea, at about the same period, at which we find it to take place in croup, from the second to the fifth day. We are aware that Roche mentions a case of membranous inflammation of eight months duration; and Girauard a similar one that lasted two years; in both of which, the membrane was from time to time detached and replaced; but these are certainly, to say the least of them, rare cases, and of a character from which but little can be inferred. Properly speaking, they are anomalies, and hardly entitled to any consideration in making up an opinion on the duration of the malady.

Termination.—Under almost any circumstances, and with any plan of treatment, the mortality of putrid sore throat is immense. To the local affections is superadded a very malignant fever, either of which is sufficient to take life. Out of the twenty-two cases reported in this paper, nine died. As previously remarked, four of the cases which terminated fatally were of the membranous variety, and died with the symptoms of croup. With the rest the termination appeared to be the result of insidious anatomical alterations in the throat, that permitted the patients to appear as well as usual, until a very short period before their dissolution. The fatal event in these cases was not marked by any great suffering or violent agitation. One or two died seemingly without a struggle, when such an event by the friends was entirely unexpected.

Since I commenced writing this paper, I was called across the street to see a child two years old, that for a few weeks previously had appeared but slightly indisposed. On examination it was found to have sore throat, and notwithstanding means were vigorously applied, it died in less than forty-eight hours after my first visit.

My friend, Dr. Joshua Martin, of Xenia, who has been a reputable practitioner of medicine, for thirty years, in our county, (Green,) informed me that having witnessed more or less of the disease ever since he commenced practice, he had noticed that its progress and termination were not only exceedingly insidious, but that it was also characterized by high bills of mortality. My partner, Dr. Winans, who has been engaged in practice during a period of twenty-five years, gave me information of a similar purport. Called out to see a child of one of our citizens, he was asked to examine the fauces of another one that was sitting on the floor eating mush and milk. After making the examination, he told the friends that it would die in less than twelve hours. Distressing as the prediction was, it was verified.

Dr. Warfield, of whom mention has already been made, says that the disease in his vicinity (Paris, Ky.) progressed

in a very '*deceitful*' manner, the patient retaining, in most cases, his muscular strength until within a few hours before his death. Nearly all of his cases, on the first appearance of the epidemic, died; which led to the conclusion among the people that the disease was incurable. From our own observations, therefore, and from what we have been enabled to learn from other physicians, the mortality in putrid sore throat falls but little short of what it is in malignant smallpox. The loss of thirty or forty cases out of every hundred, in either a sporadic or epidemic prevalence of the disorder, may be regarded as being not at all unusual.

Prognosis.—Anticipated as have been some of the principal features in the prognosis, it only remains for us to review the subject briefly, when we shall pass to a consideration of the treatment.

As we have seen, but little can be inferred from the manner in which the patient retains his muscular strength. This may leave him in any stage of the disease, or it may continue apparently but little impaired until within a few hours of his death. Nor can much be inferred from the character of the eruption, Dr. Thomas to the contrary notwithstanding; for as before remarked, this symptom is sometimes absent in every case of an epidemic, as was witnessed by Dr. Warfield when it prevailed in his vicinity; and when it does show itself its character is so various that there is nothing indicated upon which reliance can be placed. The condition, too, of the skin, as it regards moisture, is rather equivocal in its indications. Some patients pass to a fatal issue with an apparently normal condition of the skin, while others, in whom it seems dry, hot, and contracted, finally recover. A warm condition of the skin, if it is even attended with dryness, is certainly more favorable than where the temperature fails to reach the healthy standard, accompanied by a pale moist condition of the surface. From the condition of the circulation something more favorable may be augured. Fulness of the pulse, if it is even tolerably frequent, is the most favorable

condition of the circulation; and when this takes place after it has been small, frequent, and irritable, it may safely be regarded as evidence of amendment. The local phenomena favorable to convalescence are a subsidence of the livid color of the fauces, abatement of the pain and swelling of the tonsils, uvula, and *velum palati*, and a casting off of the sloughs with facility, with a clean florid appearance of the parts on which they have been situated. The presence of these circumstances being connected with a good conditiotion of the respiratory functions, is well calculated to inspire hope.—Among the more obvious circumstances connected with an unfavorable termination, a lymphatic temperament, or a scrofulous, or tuberculous diathesis, stands prominent. Placed in a state of penury, with bad air, bad lodging, etc., but little can be predicted in favor of the patient's recovery. Much also will depend upon the extent of the disease in the throat. If this part in the early stages become livid and gangrenous, with extensive sloughing of the soft parts, there is no telling what will be the result. Abscesses may form of the character of retro-pharyngeal or retro-œsophageal, which proceeding very obscurely may take life without much warning. Hence in cases attended with dysphagia, dyspnœa, or putrid aphonia, we may look out for a probable connection of these symptoms with the pathological condition to which we have just alluded. But in the event that they are found not to depend upon such a grave lesion, their presence is still unfavorable. They perhaps depend upon extensive swelling of the soft parts in the throat, which is liable at any time to take life. The extension of the membranous inflammation to the larynx and trachea, perhaps, augur a fatal issue with most certainty. When decided symptoms of croup are once developed, we may reasonably conclude that '*the end is nigh;*' as we have not by observation, or the information we have received from other practising physicians, learned that any recoveries of consequence have taken place from this condition. Hemorrhage from the mouth or gums may be regarded as unfavorable. It denotes a bad condition of the circulating

fluids; and on this account perhaps more than on any other, should its occurrence, at any time during the progress of the malady, be considered as a bad omen. Fothergill and Heberden think that the younger the patients are, the greater is their danger. This opinion, so far as our observations are concerned, is correct. Without doubt, the disease falls with greatest severity upon the young. In part, this may be owing to the fact that the disease often proceeds to an incurable stage before the necessity of properly attending to it is awakened; and also to another fact, that it is a very difficult matter in children to apply the necessary treatment to the parts locally diseased. But it must be confessed that there is something also in their organization that makes them more obnoxious to the remote cause than adults. A greater number of them contract it, when both are alike exposed to the sources of contagion.

Treatment.—Necessarily, the treatment proper for this malady, divides itself into *general* and *local.* To be correct it is indispensable that the general treatment be predicated upon proper views of the pathology. No one who has had any experience with the distemper, has failed to notice its prostrating tendency, and the singular ease with which cases, in the general, pass into a typhoid condition, bordering in some instances on putridity. This is strikingly seen in the manner in which some of the more vigorous and robust patients, as well as those of a worse class of habits, drop their accustomed energy of constitution, and become affected with a low grade of febrile excitement, and gangrenous ulcerations of the fauces. Huxham says he took some pains with the physicians in his part of England to make them understand the nature of the complaint, and distinguish it from other prevailing disorders to which it bore some degree of resemblance. He desired them to attend to "the sudden great dejection of spirits and strength," to the "small, quick, unequal fluttering pulse at the attack of *malignant squinsy.*" "Some," he continues, "were weak enough to tell me that the blood

they had drawn was very *fine* and *rich.*" But he adds, "Truly I found it as *lamb's blood* so *soft* and *loose* that you might cut it with a feather, giving off little or no serum." Other writers, notwithstanding some of them have recommended measures of depletion, in the commencement of the disease, have not failed to notice that such means were frequently accompanied by rapid prostration, and an aggravation of the graver symptoms of the malady. Boerhaave, Ball, Cullen, Thomas, and Eberle, have all hinted, some of them in pretty explicit terms, at these facts. Since, however, the group of symptoms which go to make up a case of putrid sore throat, has, by the refinements of medical nomenclature, been distributed under the terms stomatitis, tonsilitis, palatitis or uvulitis, we have been in danger of over-looking the most important feature of the disease: viz. its putrid tendency. Carefully bearing this in mind through every stage, the physician will do something more in the way of lessening the mortality to which the complaint is incident, than if he is indiscriminate in the selections of remedies suitable to such an important peculiarity. With some we know it to be a very difficult matter when they even see symptoms of debility, to imagine that they are real. Armstrong's '*congestions*' immediately take possession of the mind, and every thing connected with the condition is construed into an indication for depletion. The way must be opened for the imaginary suffocative excitement to pass out from the deep-seated organs of the body. Valuable as such doctrines are in a certain class of diseases, they will do no good in putrid sore throat. Nothing, indeed, will be found to be more fallacious, than the idea that the small, frequent, and irritable pulse here can be brought back to the normal standard by means that exercise an antiphlogistic influence upon the circulation. This brings us to a more special consideration of remedies, at the head of which, though perhaps not from its importance, stands

Bloodletting.—This has been among the remedies in this malady ever since it was first described. Huxham, as we have seen, regarded it as being of doubtful propriety. By

his influence, as may be supposed, it held a minor rank with writers and practitioners generally, until the time of Armstrong, when, most likely, from his influence, it became entitled to more consideration. Accordingly we find it recommended by late writers in the first stage of the disease, as being a remedy of considerable value. Cases, in our opinion, might occur of a very sanguine or plethoric habit, where bloodletting would appear to be justifiable, or rather where it would do no harm. Such, nevertheless, are very rare, and when they do occur, surrounded by the best possible circumstances, more may be lost by premising the treatment with the abstractions of blood, than will be gained. In the sequel of the disease, we may need the vital influence of the blood drawn, to resist the force of chemical affinities, often so conspicuous in the fauces and other parts of the body. It should be recollected too that our patient is all the time bordering upon a state of asthenia, and whether precipitated into it by the morbid forces of the disease, or by the use of remedies, the result is the same. Hence it is that the lancet in this affection is amenable to objections founded upon pathological principles; and if used at all, this should only be after the nature of the case, and the circumstances surrounding it, have left no other alternative. In the membranous variety more than any other would its utility seem to be indicated. Here we have all the symptoms of primary croup, where as a remedy the lancet by common consent holds a reputation of the very first order. But not even here can much be said in its favor. The presence of this morbid production in the larynx or trachea, is associated commonly with other symptoms, relating to the general system, that go to create doubts concerning the propriety of decided measures of depletion.

Emetics.—Among all the remedies to which the practitioner has access, none will display better effects than emetics. Administered in the first stage, or during the period of incubation, they sometimes break up the train of morbid actions, and place the patient at once out of danger. At a later period they are well calulated to equalize the excitement, and

restore the circulation to something like a healthy standard. The irritable, small pulse is more under the influence of emetics than any other remedy with which we are acquainted. The influence of emetics also in imparting to the skin a healthy diaphoresis and uniform temperature, is very obvious. Not less important are their local effects. The process of emesis, by equalizing excitement, possesses a singular efficacy in dispelling the pain, moderating the swelling, and allaying the local inflammatory excitement in the throat. Even when the parts here are ulcerous, attended with paroxysms of dyspnœa, or dysphagia, the operations of an emetic will generally give temporary relief. In children, emetics are almost our only means of cleansing the fauces from those foul, viscid and irritating accumulations that collect there in such great quantities. After vomiting they are usually better, and continue so until the parts become similarly affected. Concerning the efficacy of emetics in cases complicated with false membrane, our knowledge is limited. We have used them, in what cases we have witnessed, and always with more or less alleviation of the urgent symptoms; but we have had no case of this kind in which they, or any thing else, did more than palliate. Everything therefore considered, the efficacy of the emetics must strike every one at all acquainted with this affection as being beyond question. Without them, we know not how the treatment could, in any successful or satisfactory manner, be conducted. They are of use in every stage, and there are many indications presented, which they alone are calculated to fill. As it regards the particular emetic best suited to the complaint, those possessing stimulant effects are to be preferred. We have, nevertheless, when they seemed to be indicated, used tartar emetic and ipecac, with excellent results.

Purgatives are of some use throughout the whole course of the malady. But this is pretty much confined to keeping up the regular alvine evacuations, and working off the morbid secretions that collect in the supra, as well as infra-diapragmatic portions of the alimentary canal. For this pur-

pose aloes, rhubarb, oleum ricini, &c., are much better than antiphlogistic purgatives. They accomplish the principal objects in view, without producing much incidental debility, an effect, as already observed, that should be avoided.

Tonics.—Much of the mortality in this affection being preceded by symptoms denoting an impoverished condition of the blood, and a lack of the vital energy necessary to keep the system generally and locally from passing into a putrid state, it would seem that sustaining and strengthening medicines are strongly indicated. What we know of their effects is decidedly favorable. An infusion of any of the vegetable tonics, such as cinchona, gentian, quassia, or columbo, or a proper preparation of some of the more permanent mineral tonics, may, as circumstances seem to justify, be used; and, if this is done with discrimination and judgment, they will prove to be important auxiliaries in the treatment. With the more stimulating corroborants, alcohol, opium, &c., we have no experience. From their prompt effects they might be found to be serviceable during the urgency of symptoms in the last stages. At any other period they occupy a position of less importance, than other articles which have been previously mentioned. We want something in this malady that will not only create, but that will keep up and permanently maintain a strengthening effect for a long time. The chalybeate preparations, on this account, as well as from the fact that they are the best calculated to alter the dissolved slimy appearance of the blood, are perhaps most valuable. This concludes what we have to say on means addressed to the general system. And although they may be found at variance with the teachings of some of our modern authors, we submit them, nevertheless, for consideration and trial; and with such tests of their accuracy we shall be satisfied.

Local Remedies.—Stress, not sufficiently great, or at all commensurate with its value, has been laid upon the local treatment. Upon the judicious selection and proper application of the local means, will very much depend the success

of the practitioner. In vain will he combat general symptoms, if the throat externally and internally be neglected. Here the disease is seated, committing its ravages under the form of inflammation, gangrenous ulceraton, or the secretion of false membrane. Once securely situated here, this part becomes a focus of irritation, from which proceed morbific rays that extend to every part of the system; and hence in a great majority of the cases the malignity of the disease bears a direct proportion to the alterations which take place in the throat. Indeed I have never witnessed a fatal case without being able to trace the cause of it to the morbid anatomy of this part. A matter of great importance then, is to watch this part closely throughout the whole course of the malady, that we may give it the benefit of seasonable and vigorous measures of relief.

When the parts first become inflamed, it has been our practice to use the common capsicum gargle. This, in mild cases, where there is no very great lividness or abrasion of the stomato-pharyngean mucous membrane, will answer a good purpose. For a long time pepper has had a considerable reputation in affections of the throat. It was among the remedies of Hippocrates; and authors generally, from his day until the present, have spoken of it in very respectable terms. But its combination with salt and vinegar is a work of modern pharmacy, and does a great deal to enhance its usefulness. At any rate in all the conditions to which it is applicable, we prefer the compound preparation.

With evidence of mere distress in the fauces, the hydrochloric acid, either separately or combined with the tincture of capsicum, will be found to be a very available remedy. It is most applicable to those cases in which there is incipient gangrene, or a dark red appearance bordering on this condition. Nothing in our hands has checked this with so much facility as the hydrochloric acid. It corrects the offensive breath, the fetor arising from the parts, and serves as a detergent to remove the viscid irritating accumulations that always collect about the fauces when it is in a state of dis-

ease. Our mode of using it is in solution, combined with the tincture of capsicum, and of a strength, that, when used as a gargle, will not produce disorganization of the healthy mucous surfaces. With a preparation somewhat stronger than this, we paint the parts most diseased, from time to time, until the sloughs are cast off, and they assume the florid healthy color. Young children, we know from experience, are exceedingly averse to measures so irritating to the mouth and throat; and parents, we often find, weak enough to humor them, and forego a strict observance of the physician's directions. It should always, therefore, under such circumstances, be impressed upon the minds of parents, that an omission of duty on their part may lead to the loss of the child.

After the ulcerous process is once established, and the parts commence sloughing an irritating offensive sanies, *nitrate* of silver may be advantageously called to our aid. The great value of this salt in all similar affections, led Higgenbottom to apply it to ulcers so as to cause an eschar; and he asserts, that when this peels off, the sore beneath is found to be healed. Whether used to produce this effect or to change the morbid action, by which large portions of the soft palate are sometimes eaten off, the medicine cannot fail to be regarded with importance. But Mackenzie gives it a still higher claim to our consideration. He says that it is of great service in putting a stop to the fibrinous exudations that take place on the surface of the tonsils, and arches of the palate. Should this on extensive trial prove to be the case, the effect of the medicine as a prophylactic to the croup variety of the disease, in connection with its other acknowledged virtues, will go still further to enhance its value. Mackenzie's mode of using the medicine was in a solution, composed of a scruple of the nitrate to one ounce of water. Dr. Gibbs, (Braithwaite's Retrospect, from the American Journal of Medical Science, 1842), reports a case of cynanche maligna, followed by the symptoms of croup, in which a saturated solution of the nitrate of silver is said to have accomplished a cure. The

case was that of a child four years old. On examining the fauces, an ulcer was seen, half an inch in diameter, over the left tonsil, and the other parts were covered with 'a thick, tenacious albuminous exudation.' The breathing was 'stridulous and very shrill,' with high fever, pulse 120, and thirst. Calomel, antimonial powder and ipecac. had previously been used, but it was thought without any benefit. The sulphate of copper was then administered until it produced emesis and brought away 'shreds of membranous matter.' After this a saturated solution of the nitrate of silver was applied with a sponge to the ulcer and fauces, thrusting it far back into the pharynx. Every application was followed by relief until the cure was accomplished. We differ from Dr. Gibbs, in ascribing entirely to the nitrate the happy issue of this case. '*Shreds*' of the false membrane, it seems, were brought away by the process of emesis, before the nitrate was applied. The nitrate of silver no doubt exercised a favorable influence over the ulcerous process present, and to this feature of the case we believe its usefulness was pretty much confined.

Recently *alum* (sulphate of alumina and potassa) has been brought forward, and we may say extolled by Velpeau, of Paris, as a remedy in every stage of sore throat. This distinguished author derived his first knowledge of the efficacy of alum from his preceptor, Bretonneau, who used it while in the hospital of Tours, with great success. He also cites the experience of Laennec, of Nantes, in its favor. Velpeau used it where the throat was red and painful, the tongue foul, the amygdalæ much tumefied, with great difficulty of swallowing and breathing; and in two cases where suppuration appeared to be imminent. The result was always the same, "the pain and febrile symptoms almost always diminish in an evident manner after the first or second application, and the patient improves so rapidly that on the third or fourth day (and in some instances on the following day) he feels himself perfectly well." His manner of using it was either in gargle or in powder. The powder was resorted to only in severe cases, and was applied to the parts with the tip of the

finger. High and imposing as the authority is from which we derive this testimony, we are inclined to think it too positive and general to stand the test of experiment. We should have expected *a priori*, that alum possessed considerable virtue in diseases of the throat; but to suppose it applicable to every form of disease here—simple inflammation, membranous inflammation, and the various stages of ulceration, makes rather too strong a draft on credulity for our purpose. Medicines in a general way possess an efficacy for some particular feature or phase in the disease to which they are applied. This doubtless will be found to be the case with alum. And, if the encomiums to which we have alluded shall serve no other purpose, they may lead to such experiments with the drug as will develope the particular form of the disease in which it is beneficial.

From its acknowledged properties as a stimulant, antiseptic, etc., *creasote* should hold a respectable place among the remedies in sore throat. So far though as we are acquainted, the trials of its efficacy are not sufficiently numerous to give it anything like a decided reputation. Its use of course would be contraindicated in cases where the inflammation in the fauces was at all acute. But when the parts are affected with such a low grade of action that the vital resistance is no longer adequate to resist the play of chemical affinities, and gangrene as a consequence results, the creasote from its several properties, stimulant, antiseptic, and escharotic, would seem to be pretty fairly indicated.

Towards *scarifications*, when the fauces are dry, glossy, and attended with burning sensations, that, in the language of the older writers, denote great '*defluxions*,' we have considerable partiality. When the parts are well scarified, and bled freely, the urgent symptoms usually subside, and they then become more amenable to other remedies. It should be observed that scarifications will only prove serviceable in cases where there is considerable arterial excitement in the parts, and this is indicated by the burning pain. In other condi-

tions, as for instance where the parts are gangrenous, they might prove injurious.

External applications are in many instances necessary for the tumefaction of the glands on the side of the neck. Usually the parotid, sub-maxillary, and in many cases, the lymphatic glands, are considerably enlarged. Sometimes it is necessary to promote suppuration in order to relieve the internal engorgements about the fauces. For this pupose, emollient poultices should be applied. We think much more of those than of liniments. They combine heat and moisture, two valuable agents in the accomplishment of our object. When counterirritation is indicated, blisters and sinapisms have been the principal agents upon which we have relied. It should be borne in mind, however, that the inflammations, either externally or internally, which usually occur in putrid sore throat, are much less under the influence of counterirritation than we commonly find to be the case with those connected with other diseases.

To the general surface, when it is found to be unequal in its temperature, pale, and covered in places with a clammy perspirable matter, we may apply tepid vinegar and water until the parts are sufficiently cleansed, after which frictions with flannel should be instituted, until the surface puts on a florid appearance. Measures of this kind, by maintaining an equilibrium of temperature, will promote healthy diaphoresis, and invite towards the surface, congestions that would otherwise accumulate upon the deeper-seated organs of the body.

Before concluding the treatment, it might perhaps be proper to say something on the regimen to be observed. Commonly the appetite is poor and the stomach weak. But we feel assured, that articles calculated, to a reasonable extent, to strengthen the one and excite the other, will do more good than if they are light and scanty. We need the influence of a generous nourishing diet—something that will keep the functions of nutrition in vigorous play, during the whole course of the disease. Beef-tea, potatoe soup, and

milk porridge, with wine occasionally, will answer very well, and perhaps do all that can be done, in this way, to obviate the septic tendency to which the complaint is liable.

The principal points upon which the attention should be fixed in the treatment, may now be summed up in the following propositions:

1. The disease, in the general, being characterized by a low grade of morbid actions, is not, as a consequence, amenable to decided antiphlogistic remedies.

2. The *local* treatment is of as much, if not of more importance, than the general.

3. The resources of the system should be carefully economized throughout the whole course of the disease; and all pains taken with strengthening medicines, and regimen, to avoid the stage of prostration.

Jamestown, Ohio, Dec. 7, 1844.

REVIEWS.

ART. II.—*Lectures on the Theory and Practice of Physic.*—By JOHN BELL, M.D., Fellow of the College of Physicians Philadelphia; Corresponding Secretary of the Philadelphia Medical College; Member of the American Philosophical Society, and of the Georgofili Society of Florence, &c., &c., and by WILLIAM STOKES, M.D., Lecturer at the Medical School, Park street, Dublin; Physician to the Meath Hospital, &c., &c. *Third Edition, enlarged and improved.* 2 vols. 12mo. Philadelphia: Ed. Barrington & Geo. D. Haswell. 1845. pp. 728 and 790.

The alterations and improvements in this edition of these Lectures, consist in the omission of the Treatise of Dr. Stokes on the *Diagnosis and Treatment of Diseases of the Chest*, and the introduction of matter relating to the diseases of the organs of generation in both sexes, to several diseases of the respiratory apparatus, omitted before, to tubercular meningitis, epidemic meningitis, scrofula, syphilis, the exanthemata, rheumatism and gout, amounting, altogether, to about three hundred pages. Of the large accumulations made of late years on the pathology and modified treatment of the Diseases of Children, Dr. Bell has made profitable use, and this is a portion of this valuable work which will attract the particular attention of the practitioner. We propose to give some account of the matters embraced under that head in this article, and we commence with a quotation from the lecture, by Dr. Bell, on the Diseases of Dentition. It is hygienic in its

character, and although it conveys no new precept, the lesson it impresses is one of great consideration, as thus laid down:

"The plain hygienic precept for avoiding many of the evils which I have just sketched, is, to protect the child by suitable clothing, and with this view to cover all parts of the skin which in after life are kept covered. The breast and shoulders and arms ought to be clothed, as they are among the most susceptible parts of the body to atmospherical vicissitudes and extremes. The common and hackneyed but ill-founded excuse of a wish to harden the child, is not applicable to the practice of leaving naked and exposed these portions of the body; for, it is not meant that they should remain so after the child leaves the nursery, nor ever be so subsequently in any period of after life; at any rate in the male sex. In the texture of the garments we shall be guided by the season; as to fashion, they ought to be always loose.

It may perhaps be said that these considerations and details belong to the nursery, and are beneath the consideration of a professor of the theory and practice of physic. But a little reflexion will soon convince you, without any argument from me, that the theory of medicine involves, in fact imperatively requires, a study of all the probable causes of disease, and of the circumstances which give them additional activity, or in any way modify them. As the highest and noblest aim of ethical philosophy is premonition and prevention, so in medical philosophy it is both more humane and more intellectual to devise means to guard against disease, than to display skill, learning, and research, in trials to cure, uncertain as we must be of a successful result, and knowing often that our best devised efforts, in some cases, will almost certainly fail."

One of the most troublesome of the complaints of young infants is colic, the treatment of which is thus given by Dr. Bell:

"*Infantile colic* is sometimes of the stercoraceous variety; but more frequently it depends on morbid secretions from the liver and bowels, and on imperfect change which the food undergoes from its want of adaptation to the digestive sensibility. Of the first kind is the colic of new-born infants, or when the viscid meconium adheres to the colon, and is not evacuated. Castor oil warmed, and in doses of half a drachm

to a drachm, and in more obstinate cases of retention with the addition of five drops of oil of turpentine, will generally suffice to give relief in a case of this nature. Dr. Dewees (*On the Physical and Medical Treatment of Children,*) details a case of the disease, which, by the way, was not colic, caused by retention of the meconium, and in which the common laxatives, castor oil and magnesia, failed to operate. He succeeded at last by the administration of a grain of the carbonate of soda, dissolved in a teaspoonful of lukewarm water, every fifteen minutes, until ten grains were taken. Another modification of stercoraceous colic is met with in infants who are habitually constipated, and whose appetite and growth are both vigorous. Purgatives, as is soon discovered, are not the remedy in this case. We must be content to palliate until, with time and some natural change in the functions, the bad habit is changed. Laxative enemata of the simple kind, or occasionally a little castor oil, or spiced syrup of rhubarb, or manna dissolved in its food, as sweatening, if the child uses spoon-victuals, will generally suffice. A suppository of soap is occasionally useful. I have sometimes given from a quarter to half a grain or a grain of calomel with a little magnesia; but of course not frequently, still less habitually, in every case. This prescription is called for when colic proceeds from deficient secretion of bile, as in jaundice. In this disease, as it attacks new-born infants, I have had occasion to be much pleased with the oil of turpentine, in doses of from ten to twenty drops, with a teaspoonful of castor or sweet oil, repeated at an interval of twenty-four or forty-eight hours. It is, also, one of the best medicines for infantile colic with constipation. Simple syrup, with a little of some essential oil, answers well at times, as follows:—Simple syrup, one pint; oil of rue, eight to ten drops. Mix. Dose, one to two teaspoonfuls.

"In the other, and still more common, colic of children, depending on indigestion, our attention must be first directed to the health of the mother. In her, bad digestion or other derangement of health, kept up sometimes by gross and improper food, drinking tea and coffee to excess and malt liquors; sometimes want of air and exercise, and late hours; and again, by indulgence in strong emotions, or by any cause which irritates the nervous system, must we seek an explanation of the depraved nature of her milk, and, consequently, of colic and other forms of indigestion of the infant. Doctor Dewees (*op. cit.*) relates a case of serious and alarming disease of a child, beginning with colic and running on to vom-

iting and diarrhœa with great emaciation, which was produced by the altered quality of its mother's milk, owing to severe and protracted toothache. To the child itself suffering from colic, a few grains of carbonate of magnesia, with some simple carminative,—mint, or peppermint water, or camphor mixture, or a grain of subcarbonate of potassa, or two or three drops of liquor potassæ in a similar fluid, with sugar,—will often give relief, without interfering with the peristaltic actions of the bowels, or impairing the digestive energy, as all cordials and mixtures into which opium enters are so apt to do. *Calamus aromaticus*, in powder, with chalk or magnesia. answers a similar intention. In some extreme cases of suffering, a drop or two of laudanum will give the desired relief; but never ought the physician to prescribe it regularly, or to allow of its regular use in the nursery. He can hardly be too emphatic in his cautions against the dangers of the practice of habitual laudanum or opium-taking in child or adult.

"In some cases, infantile colic recurs so regularly at particular times in twenty-four hours as to force attention to periodicity, and to suggest its being treated accordingly. I have, in cases of this nature, given the sulphate of quinia in a dose of twelfth to an eighth of a grain in solution, with the effect of greatly mitigating the violence of the attack, and sometimes of warding it off entirely. One may, however, reasonably suspect, that this periodical colic is sometimes owing to the recurrence of an external exciting cause, as in the quality of the mother's milk at a particular time in the twenty-four hours, rather than to an internal organic condition of the nervous system which generally gives rise to periodicity. In confirmation of this, I may state one of my boarding-school reminiscences. A boy, whose digestive organs were never very strong, used to have regularly every Monday afternoon an attack of colic; not very severe, it is true, but quite troublesome and well-marked in all its symptoms. The cause of this weekly return of disease was almost forced on his attention, after a while, by its uniformly following a dinner on cold beef, which was the regular dish of meat for Monday. Many a dyspeptic, who thinks that his sufferings are entailed on him, of necessity, for life would discover, by a little retrospection of his diet during the preceding twenty-four hours, that these are avoidable; and that if he were to omit some article of the *cold-beef* class, he would escape his special ailment.

"Before dismissing the treatment of infantile colic, let me enjoin attention to the feet of the child being carefully covered with warm socks and shoes, which ought to occasionally in the day to be taken off, and the feet rubbed by the warm hands of its mother or nurse before the fire, or over a flue of hot air. The early use of a tepid salt-water bath, to be followed by careful friction over the abdomen and the lower limbs, will prove to be a useful preventive of colic, as well as corroborant of the system generally."

Dr. Bell devotes three lectures to the consideration of that formidable malady of the young, *cholera infantum.* Under the head of *causes* he gives the following interesting details:

"*Causes.*—Physicians are generally agreed as to the obvious causes of cholera infantum. Some are inclined to add not only a less appreciable but at all times a very doubtful and in the present case, a very improbable cause—malaria. The disease appears in our cities with the first heat of summer, and continues through the months of July and August into September; but abating in this latter month, as the weather becomes cooler. But although thus manifestly connected with high atmospherical heat, cholera infantum cannot be said to be the product of this alone; for otherwise it ought to increase in violence in proportion to the warmth of the climate, or as we advance south; which is not the case. Such ought to be the state of things, also, if malaria were the cause. We believe it will be found that it is a more common disease in Boston, for example, than in Charleston; certainly it is more so in Philadelphia than in New Orleans. The explanation I take to be this: that the system of a child, on the approach of its first and even second summer, is very much in the same condition as that of a person newly arrived from the north at a southern city. The susceptibility to heat being great, its effects are felt more sensibly on the nervous system, which it excites, and through it on the vascular system, and even still more, the tegumentary; the skin first and afterwards the mucous membranes. These last are kept in a state of irritation short of phlogosis by the high and continued heat acting on the skin; and the digestive ones in their turn, transmit the irritation to the liver, which is often excited in consequence. Now, if in this state of predisposition the person be exposed to close and impure air, the circulation

and nervous system become more and more disturbed, and there is the very imminence of violent disease, which only requires for its coming on an excess or irregularity in food, loss of rest, or any morbid excitement of the nervous system, whether from bodily pain or mental anxiety. In a child, the disease will be cholera; in an adult, bilious remittent fever, or yellow fever. In both there will be great gastro-enteric disorder, with hepatic and cerebral complications.

"In recurring to the original proposition, that the disease is brought on by high atmospherical heat in our cities, we cannot overlook the fact of this being the chief and main endemial agent,—without which other coinciding causes, such as the irritation of teething and of indigestible food, would be generally insufficient for its production. It is, however, the high heat following winter's cold, acting for the first time on an infant whose functions have barely acquired the necessary rhythm, certainly are not accustomed to such stimulation. An infant, exposed from birth to a mild temperature, might be expected to feel less even the great heat of our cities during the summer months. Atmospherical agency is made manifest in the amelioration of existing cases of the disease, and fewer fresh attacks during the interval of a few cool days at any time in the summer; and, on the other hand, augmentation in both during great heats, and particularly during a close and damp state of the air, when the thermometer is at the same time high.

"In a table now before me, I find the number of deaths from cholera infantum in Philadelphia, during a period of ten years (from 1823 to 1831), to be 2323, or on an average 232; the maximum having been in 1831, or 303, and the minimum in 1824, or 155; and those from cholera morbus during the same period, of subjects over ten years of age, 114. You will have observed, in my lecture on epidemic cholera, that the cases of infantile cholera were augmenred in 1832, the 'cholera year,' to 316 in 3 months, as were, indeed, all the diseases of the bowels in that year. In 1833 the amount was one hundred and ninety-seven, or less than it had been for eight years preceding.

"The influence of a tropical climate, for under this designation the summer in one of the large cities of the middle States is entitled to be spoken of, is well illustrated in the following memoranda of diseases of the digestive apparatus among children in Philadelphia and New York, for the years

1838 and 1839. In the former city, with a population of 200,000, the entire mortality of 1838 was 5118; of which the deaths of children from *cholera infantum* were 382: of these 364 were under two years, viz: 247 under a year, and 116 in the second year after birth. In 1839 the deaths from this disease were 230; the excess in 1838 being explained by the unusually long period of high atmospherical heat in the summer of that year. The number of children who thus perished within the first year from birth was 142; in the second 75; and between the termination of the second and the fifth year, 13. The entire mortality from the diseases of the digestive canal was as follows:

	1838.	1839.
Cholera Infantum, - - - - -	382	230
Diarrhœa, - - - - -	65	96
Dysentery, - - - - -	45	68
Inflammation of the Stomach and Bowels,	80	83
	572	477

"In Washington, the proportionate mortality from cholera infantum is considerable, as might, *à priori*, be inferred from the excessive heat of its summers, without the mitigation of sea-breeze, by which even Charleston and Savannah are made more tolerable for infant life. Dr. Lindsly, in his article already referred to, gives us some useful information on this point, which is best conveyed in his own words.

" 'It will be seen by the following table, that of the whole number of deaths in the months of July and August, nearly one-half, and in two instance *more than one-half*, were under two years of age; and that of this number, almost three-fourths died of what is usually termed here 'summer complaint,' under which general term are included cholera infantum and simple diarrhœa of children. Also, that the cases were much more numerous in July and August, than in June, that a slight diminution took place in September, and that in October the number was again very small.

" 'The ratio of cases of infantile cholera in the above table is about the same as that exhibited by the record for several years past, and this may therefore be assumed as the proportion of victims annually destroyed by this fatal disease in Washington, during the months referred to.'

"In Boston, also, we still find that the summer gives a tro-

pical climate, particularly for children under two years of age. For a period of ten years, from 1821 to 1830, inclusive, in which the entire number of deaths was 10,731, the mortality of children under two years, in the months of July, August, September, and October, was 1537; the whole mortality of this class, for the entire period, being 3182. Hence we see that the deaths of children between birth and two years old, in Boston, in the four months in which the summer temperature predominates, was just one-seventh of the entire number, and one-half of the particular class; or, in other words, the deaths are as numerous among children of this age in these four months, as in the remaining eight of the year. The deaths from cholera infantum, during the above period of ten years, was 149. Those from 1831 to 1839, or a period of nine yers, was 407; the annual average of twenty years was but a little over 27. This is quite a small proportion of deaths from cholera infantum, in a population averaging, during the entire period of twenty years, about 65,000, and which, in 1840, was 93,470. But if we add the kindred, and probably in most instances identical diseases, reported under the head of gastritis, teething, and dysentery, the amount of cases of deaths of children from gastro-intestinal disease, in the summer months in Boston, will be more easily accounted for; and place this city, on the score of infant mortality, in a line with, but quite behind, Philadelphia and New York. For much valuable information on the vital statistics of Boston, I refer you to the paper by Dr. Shuttuck in the *American Jour. Med. Sci.*, 1841.

"The aggravation of disease by the irritation of teething is manifest to every physician: it aggravates bronchitis in winter and cholera in summer: it might even be said to cause them, by inducing a morbid susceptibility—a predisposition to cold and moisture, in the former season, and to great heat in the second, without which these atmospherical extremes would be relatively innocuous. But that teething is only a secondary importance in the etiology of cholera, is manifest from the fact that, however suffering from this irritation at other seasons, rarely will children then have cholera."

We wish we could command room to give the entire lecture on Croup, by Dr. Bell, but we shall be obliged again to limit ourselves to a few extracts. Dr. Bell objects to the term *trachealis* as conveying a false idea of the pathology of

the disease, and adduces very convincing evidence in favor of its being rather laryngeal than tracheal. His concluding arguments are that—

"We cannot understand, nor give any adequate explanation of the spasmodic croup, or of the fits of threatened suffocation in common croup, unless we admit the laryngeal seat of the disease. The irritating cause is in the mucous membrane of the glottis and larynx; by a reflex-motor action, the irritation of the membrane, transmitted to the brain, causes a return of innervation on the muscles of the glottis and larynx, and they are contracted with more or less violence. The cerebral excitement is kept up in these cases, and often augmented, 1. by the external air which is not in relation with the morbid sensibility of the inflamed organ; 2. by the duration of the inflammation itself; 3. by the various products of inflammatory secretion, which, like so many foreign bodies, irritate the air-passages. Hoarseness, or an equivalent condition of voice, may be the fixed one in croup; but the modifications depending on spasm of the laryngeal muscles must be considerable. The spasm may be continued, remittent, or intermittent; varieties which may exist in laryngitis with false membrane from the glottis down to the bronchia. A suspension of the more violent symptoms may take place, and the disease seem so far to be *intermittent;* but it is the spasm of the muscles, not the secretion of the exuded membrane and croup proper, which intermit. Inflammation of the membrane, like any other of the phlegmasiæ, is liable to exacerbation; but this latter does not always correspond with the spasm or fits of laborious breathing and imminent suffocation. The spasm of the glottis is most common at night; and hence a mucous irritant, hardly a source of complaint during the day, may, without any, or with very slight increment, be a source of imminent suffocation at night, owing to the greater susceptibility of the nerves and muscles at this time. Death rarely results from the occlusion of the glottis, by the thickening of the mucous membrane or the superposition of false membrane on this latter; but it may by the spasmodic action of the muscles. Even where the false membrane is formed and adherent, the breathing is sometimes free just before death.

"But, although the characteristic symptoms of croup depend on organic lesion of the larynx, we cannot render an account of all the phenomena of the disease if we overlook its tracheo-bronchial and even pulmonary complications. Of these I have

already spoken. The dyspnœa gives a tolerable good measure of their presence and intensity. Hence, when we see the lips of a livid or violet color, the face tumefied, the eyes prominent and shining, headache, somnolency, comatose stupor, convulsions, a peculiar anxiety, hurried breathing, and throwing the head back, we recognize symptoms of impeded pulmonary circulation and decarbonization of the blood, and feel ourselves more urgently called upon to remove this state of things, whether the laryngeal symptoms proper be urgent or not."

The statistics of croup, given under the head of *mortality*, we venture to say, will surprise most of our readers, to whom this malady, formidable as it is, has not appeared by any means so intractable, as it would seem to be in many countries, and especially in France. Dr. Bell remarks:

"The mortality from croup has varied at different periods, and is rated very differently by writers in different countries. M. Andral estimates the recoveries to the deaths as barely one in ten; adding, that in a small village in France (near Treste-sous-Jouarre) during a period of epidemic croup, in 1825, of sixty children attacked, the entire number perished with the disease. It is encouraging to know that the treatment is more successful now, or, at any rate, the relative mortality is less than it was at the beginning of the present century. M. Double (*Traité du Croup*) has taken the pains to prepare a table exhibiting the results of the practice of fifty-eight writers who have published their experience in this disease, from which it appears that the number of cures is rather more than a third part of the whole. The authors being ranged in chronological order, we can make at once two classes, twenty-nine in each; and show that, whilst nearly four-fifths died of croup of those who had been attacked and who had been attended by the first class, not quite one-half of the entire number attended by the second, or more modern class, fell victims to the disease. In the spring of 1760, that of its first appearance in the county of Lancaster, England, Mr. Fell, a surgeon, who announces this fact, adds that, during the season, six children laboring under croup were committed to his care, to all of whom it proved fatal. But even at the present day our professional vanity is rebuked at the great mortality from croup in different parts of Europe. In a capi-

tal like Paris, where all the knowledge and resources of the art would, we might suppose, be brought to bear for the cure of disease in every form, the American student will be not a little surprised at the results of hospital practice, in croup, as exhibited in the prize essay on the subject by M. Boudet, (*Archiv. Gen. de Medicine, Fev. et Avril*, 1842.) Thus, of twenty-six cases of croup, received into the Children's Hospital in Paris, for a period of six years, or from 1834 to 1839, the deaths were twenty-two in number. In this year, (1839,) and in the two following years, croup was epidemic in Paris; the deaths from this disease having been in 1838, '39, and '40, respectively, 187, 286, and 326. In the Children's Hospital, in 1840, the deaths were twenty-three, and the recoveries but two; in 1840, during the first six months the deaths were twelve, being the entire number of all the cases received in the hospital. This terrible mortality might reasonably be attributed to the deteriorated constitution of the poor children brought to the hospital, did we not read in Boudet's essay that a physician, whom he names, (M. Loyseau,) living in Montmâtre, near to Paris, lost twelve out of fourteen cases, which he was called upon to attend at the houses of his patients. I have not the requisite data on which to express an opinion of the proportionate mortality of croup in the United States; but, adding my own experience to that of my professional friends, I should say, that it is not nearly so great as that given in any of the preceding statements of European authors, particularly the continental ones. Cases of croup are of very frequent occurrence with us—the deaths, compared to the number attacked, are few."

Is it not possible that this great mortality is ascribable, in part, at least, to the inefficiency of the plan of treatment adopted? Certain it is, that practitioners of our acquaintance, who have had large experience in croup, have cured a vastly larger proportion of their cases. We might mention, as among them, Dr. Cooke, lately of the Medical Institute of Louisville, who was in the habit of stating to his class, that he rarely lost a patient in that disease, and whose success was, probably, owing to the bold use of one of the remedies, calomel, which Dr. Bell so strongly commends. We give a portion of Dr. B.'s remarks on tartar emetic and calomel:

"You must by this time be fully aware of the therapeutical basis on which I rest my use of tartar emetic in croup, as well as in so many other of the phlegmasiæ. It is not merely as an emetic, but as a contrastimulant or sedative, opposed to inflammatory action irrespective of its procuring evacuations, that I habitually use this medicine. Its utility in this way is beginning to be perceived by some of the practitioners of Great Britain, one of whom, Dr. Wilson, of Kelso, relates his successful use of tartar emetic in croup; he having cured ten out of twelve cases. He gave, after leeches had been applied to the larynx, followed by warm poultices frequently renewed, the antimonial salt, in doses of one-fourth, to one-third of a grain, at first every hour, until a decided impression was made, and afterwards every two hours, till the patient was considered in safety. The toleration of the medicine did not extend so far as that it did not vomit at first quite freely; but it had no action on the bowels, which required castor oil or some other laxative to obviate costiveness. For children, Dr. Wilson properly directs from half a minim to a minim of laudanum in addition to the tartar emetic."

"It is not a little vexatious to find writers of established and deserved reputation take such limited views of the effects of *calomel* on various diseases. One will tell us that unless it purges it will do little good; another assures us that its administration will be useless in this stage of croup, because time is not allowed for it to touch the mouth. This last notion, that we cannot procure the full revolutionising and alterative effects of mercurial preparations in general, unless the salivary glands are inflamed and incipient ptyalism caused, is rank empiricism, and has completely blinded us to their therapeutical operation. Calomel, which we may speak of as in a great measure representing the other preparations of mercury, when taken into the stomach acts very speedily on the mucous membrane of this organ and of the small intestines; and, in a short time, on the liver and pancreas, which, by means of their excretory ducts, are placed in close and continuous relation with the intestinal mucous surface. Soon the large intestines are affected, and increased defecation is the consequence. But the operation of the medicine even in purgative doses is not confined to the gastro-intestinal canal and its subsidiary glands; it is extended to all the other mucous surfaces—the respiratory in one direction and the genito-urinary and its secretory apparatus in another; and is followed by increased expectoration and diuresis, together with an abatement of prior irritation which may have prevailed in one or other of

these divisions. Calomel acts in a more especial manner on all portions of the mucous system, and through it on their glandular appendages; and hence its use is more immediately applicable to irritations and inflammations of the mucous membranes and their glands than to other forms of disease. Most mischievous has proved the notion that the general system is not affected by mercury, and notably by calomel, unless and until ptyalism is produced. Under the influence of this error, immense quantities of the medicine are introduced into the stomach, with the effect often of a great depression of the vital powers, and particularly of the functions of the nervous system, cold skin, excessive inertia, &c.; the prescribing physician all the while waiting for the action of the calomel. In this way the patient may be actually destroyed by mercury, without any suspicion being entertained of the fact by the doctors of the salivating school.

"Calomel, says Delafontaines, inspector-general of military hospitals at Warsaw, is the first and the most efficacious of all the remedies employed in croup. I regard it, he says, as a specific, at least as certain against croup as against syphilis. Albers and Olbers recommended and used calomel; sometimes alone, after venesection, sometimes alternating it with kermes mineral and musk. Frank, at Wilna, relies on calomel, after venesection, general and local. Autenrieth used it to act on the stomach and bowels as a revulsive, and to prevent the formation of a false membrane. Copious and fetid alvine discharges were followed in a surprising manner by a removal of the affections of the larynx. Dr. James Hamilton, the younger, gave a grain of calomel every hour to children within the year, and two grains and a half for those two years old, until relief was obtained; then he gradually diminished the dose. Commonly evacuations upwards and downwards resulted. A child, five months old, took thirty-two grains of calomel in twenty-four hours, and another took eighty-four grains in seventy-two hours. Two children were lost by the weakness which resulted from continuing the calomel after the symptoms of the croup had subsided. Drs. Kuhn, Redman, and Rush, gave calomel in large doses. Dr. Rush gave six grains two or three times a day. Dr. Physick gave thirty grains one day to the child three months old which was bled three times in the day. Bond first recommended it. Bayley used it. Bard also praised it, as augmenting the secretions and rendering them more fluid, and thus diminished or prevented the secretion and adhesion of the membrane. The use of calomel and enemata made up the chief treatment of Autenrieth in croup."

Pneumonia in infants is a most formidable disease, and at the same time is one in which the diagnosis is obscure. Dr. Bell very properly devotes particular attention to it in the following paragraph:

"*Symptoms of Infantile Pneumonia.*—The importance but yet difficulty of diagnosis of pulmonary inflammation in children and the frequency of the disease, will justify my making some additional remarks on this topic. Acceleration of the pulse and of respiration are important symptoms in the disease, and influence not a little our prognosis. When there is no complication of other acute diseases, they may be taken as a measure of the intensity and extent of the inflammation.

"At the outset of the disease there are some peculiarities in the mode of respiration, and, if the child be still fed from the breast, of sucking, mentioned by Dr. West, (*Memoir on Infantile Pneumonia—Brit. and For. Med. Rev.*,) which will aid us in forming a correct, and, what is of great importance, an early diagnosis. If, while a healthy infant is sleeping, the mouth be gently opened, it will be observed that the tongue is applied to the roof of the mouth, and that respiration is carried on through the nares. So soon, however, as the lungs become affected, even when no other symptom exists than general febrile disturbance, and perhaps the vomiting above alluded to, the infant will be seen no longer to breathe solely through his nose, but to lie with his mouth partly open, and drawing in air through it. This imparts to the tongue its preternatural dryness, and the same inability to respire comfortably through the nares causes the child to suck by starts. The infant seizes the breast eagerly, sucks for a moment with greediness, then suddenly drops the nipple, and, in many instances, begins to cry. As the disease advances, these peculiarities in the mode of sucking and respiration often become more striking, but it is at the onset of the disease that it is of especial importance to notice them, since they afford most valuable indications of its real nature.

"As respects the physical signs of infantile pneumonia, it may be said that the mucous rhonchus is heard in most cases in which catarrh has preceded the symptoms of pneumonia proper; but, Dr. West thinks, it should be looked on as one of the least important of the physical signs of this disease, since it was present in thirteen only of fifty-one children under five years of age. It is of importance, however, in the young subject, as the immediate precursor of bronchial respi-

ration; while in the adult there is no such connection. 'The sub-crepitant rhonchus is a sign of far greater importance than the mucous rhonchus, whether we regard the frequency of its occurrence, or the consequences which follow it. It was heard in forty-two out of fifty-one cases; in thirty-one of which it either had not been preceded by mucous rhonchus, or if it had, that had ceased before the patients came (says Dr. West) under my notice.'

"The observation made by M. Guernard is confimed by Rilliet and Barthez, viz: that these sounds readily disappear if the little patients are kept seated for a short time; and that their greatest distinctness is when the child is raised from the bed."

This, we are aware, is a very imperfect notice of this elaborate and learned work, and we regret to be compelled to close it thus abruptly; but the arrangement of matter by our printer, leaves us no alternative. After all, perhaps, it is a matter of little moment, since these volumes will soon make their way into all the bookstores of the country, where readers will have an opportunity of judging of their merits for themselves. Our favorable opinion of them has already been expressed, and we will only add, that our estimate of their excellence has been heightened by repeated examinations. For all the qualities which the student or practitioner can desire in a work for study or reference, these lectures may be safely recommended, as comprising as much as could be brought within their limits of sound opinion and judicious practice.

Y.

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

The Abortive and Curative Treatment of Gonorrhœa by the Nitrate of Silver, with cases; by H. F. Campbell, M.D., Demonstrator in the Medical College of Georgia.—In the October number of the Medico-Chirurgical Review, for 1843, and also in a late number of the American Journal of the Medical Sciences, is an article on the abortive treatment of gonorrhœa, by lunar caustic. In the two communications, the reporters have applied it differently—Mr. Childs recommending its application in substance, while Mr. Debeney prefers it injected in a solution of strength, from viii. to xv. grs. to the ounce of water. Having, in the treatment of gonorrhœa, used nitrate of silver after both these modes of application, my experience goes to corroborate their testimony as to its efficacy under either form, though of the two I prefer its application by injection.

I have found that the strength of the injection prescribed by M. Debeney is not generally sufficient to relieve by the first or second application, and that it was necessary, in most cases, to increase it to from xx. to xxx. grs. to the ounce of water, and I have applied it in even a more concentrated solution. This I find to be a good modification of the two plans, inasmuch as that, while we secure its application minutely to the whole extent of the diseased surface, we, by this increase in the strength of the injection, provide a sufficiency of the agent to produce more effectual cauterization. I have had but one case, as will be hereafter seen, wherein the application has been followed by a high degree of inflammation, and in that one I have reason to suppose it to have commenced be-

fore this means of treatment had been resorted to. Generally, I have found the patient recovering speedily from both the disease and the effects of the cautery.

Case 1. A carpenter, aged 30 years, general health good; was exposed to the disease, and on the third day experienced pain in urinating, and a continued burning for some time after. He was relieved by one injection of lunar caustic, xxx. grs. to the ounce of water.

Case 2. A young man aged 17. The discharge in this case had began to show itself. Treated by one injection of lunar caustic, xl. grs. to the ounce of water; there was a discharge of blood afterwards in small quantity, but in a few days he was entirely well.

Case 3. A recent case wherein the patient complained of tenderness of the chord before treatment. One injection was made of nearly xxx. grs. to the ounce of water. The application was followed by pain in the testicle and orchitis. The patient was from that time treated by another physician; of the result I have not as yet been advised. This is the only case wherein the nitrate of silver, applied by myself in this disease, was followed by unpleasant symptoms.

Case 4. A negro man, a tailor, aged 26. A recent attack, relieved by two injections of lunar caustic, xv. grs. to the ounce of water.

Case 5. A mulatto boy aged 20 years; of a strumous diathesis; first treated by another physician, and afterwards by myself, unsuccessfully, with various balsamic mixtures and astringent injections, was cured by one injection of the nitrate of silver, xxv. grs. to the ounce of water. In this case a whitish membranous eschar was voided while urinating a few days after the application.

Case 6. A negro man aged about 23 years; a boat hand, had had the disease about ten days. One injection was applied of from xx. to xxx. grs. to the ounce of water. The balsamic treatment, before used without making any impression on the disease, was continued; the patient was well in less than a week's time.

Case 7. A white man aged 30, a team-driver, a recent case, cured by one injection, xx. grs. to the ounce of water.

Case 8. A male aged 33 years, a recent attack; discharge abundant, commenced the day before, no pain. I applied one injection of lunar caustic, xl. grs. to the ounce of water. That day there was an increase in the discharge and much pain in urinating, with some blood at that time. On the second day the discharge ceased altogether, though the pain and bloody

urine continued for some days. In this case I combined, during the treatment, a few doses of balsamic emulsion each day.

Case 9. A male aged 20 years, treated on the third day after the discharge had commenced with one injection of lunar caustic, xxx. grs. to the ounce of water, together with balsamic emulsion. On the fourth day the patient was entirely cured.

Case 10. Prof. P. F. Eve here kindly furnishes me with a case wherein the balsamic and astringent treatment had proved entirely inert, though persevered in for some weeks, till combined with injections of the nitrate of silver of from viii. to xv. grs. to the ounce of water.

Of the application of the nitrate of silver in substance, I can adduce but three cases; one of which occurred in the practice of Dr. Edward A. Eve, near this city, the other two came under my own observation.

Case 11. A young man aged 26 years, sanguine temperament, treated unsuccessfully with balsamic emulsion and injections of sulphate of zinc, and sulp. of morphine. Dr. E. applied the nitrate of silver in substance, by paring the end of a cylinder, and introducing it for about a half inch or more, within the orifice of the urethra. This was done repeatedly, and the patient was relieved in a short time after this plan of treatment was adopted.

Case 12. A male aged 30 years, a mechanic, bilious temperament, general health good. In this case the gonorrhœa was complicated by a stricture, the result of previous disease, at the distance of about an inch from the orifice of the urethra; it was at a point somewhat beyond this, that the urethritis appeared to obtain, the patient experiencing pain at that place, during manipulation, and the matter confined behind the stricture, on pressure, would appear at the orifice. After dilating the stricture by bougies, I freely applied the nitrate of silver in substance, by means of a style and canula somewhat similar to those of Mr. Childs. The pain was not felt after the burning of the caustic had subsided, the discharge ceased, and in a few days the patient was well.

In the female, I have found the application of the nitrate of silver in substance, preferable to the form of injection; it is more practicable, the locality of the inflammation not being invariable. Of this class is the following:

Case 13. A white woman aged 26 years; general health good, habits regular. Treated for some weeks with the usual balsamic remedies, using at the same time very strong astringent injections of sulph. cup. and sulph. zinc. aa viii. grs.

and sulph. morphine 1 gr. to the ounce of water, applied once a day. Finding this treatment unsuccessful, I applied with a speculum uteri, the nitrate of silver, by means of a port-caustic, freely to the orifice of the urethra, mouth of the womb, and interruptedly to the sides of the vagina. The application was made but once; it caused much pain and there started a few drops of blood from the posterior lip of the os tincæ, which seemed very much congested. In this case I continued the balsamic mixture together with the above injection, diluted. The discharge, though undiminished before the cauterization, soon entirely ceased, and she was well on the fourth day.

From the consideration of the thirteen cases given above, together with the well attested experience of Mr. Childs and M. Debeney, I think we may safely conclude with regard to this mode of treatment: Firstly, that the treatment of gonorrhœa with lunar caustic, as proposed by them, is preferable to any other mode of treatment. Secondly, that the form of injection is preferable to its application in substance. Thirdly, that in cases not relieved by the injection as prescribed by M. Debeney, of strength from viii. to xv. grs. to the ounce of water, it being perfectly safe, it is advisable to increase it, even far beyond that strength. And further, that in those cases, wherein of itself it does not wholly relieve, we should by no means reject it, but continue its use as a very valuable adjunct to any other plan of treatment we can adopt.

Southern Medical and Surgical Journal.

Accidental Poisoning with Arsenic successfully treated with the Hydrated Peroxide of Iron. By J. J. Kelso, M.D., Lisburn. Though a wide-spread skepticism regarding the efficacy of the hydrated peroxide or sesquioxide of iron, as an antidote to poisoning with arsenic, most undoubtedly, and, considering the number of different substances that have successively been proposed for this purpose, only to be rejected each in turn as utterly valueless, not unnaturally, obtains; still, from repeated experiments, both of a physiological and chemical nature, and more especially from actual experience of the preparation in cases of poisoning in the human subject, its power of converting the white oxide of this metal into an insoluble compound—the arsenite of iron—and thereby rendering it innoxious in its effects, as well in man as in the lower animals, seems at present to be pretty well established, and very gen-

erally admitted by many members of the profession—and, among others, by Christison (*Dispensatory*, p. 184) and Pereira (*Elements of Materia Medica*,) on whose authority we are accustomed, not without sufficient reason, to repose. It may not, perhaps, be too much to affirm, that on the whole a growing faith in favor of the counteracting influence of the rust of iron, either in the state of magma or dry powder, in instances where the arsenic has been ingested in poisonous doses, at least under certain conditions, and to a certain extent, is evidently and very reasonably beginning to manifest itself. Be this as it may, the following case presents, I am strongly inclined to think, a very striking exemplification of the good effects of the remedy.

Mary C——, a fine, healthy, intelligent little girl, of about eight years of age, swallowed, on the 18th of May last, a quantity of arsenic, or at least what then was believed to be such, which had been designedly mixed with some oatmeal, and set aside in a particular place for the purpose of poisoning rats.

The facts of this very interesting case are briefly as follows: C——, the child's father, it appeared, purchased on the preceding evening, at an apothecary's shop in Lisburn, a pennyworth of white arsenic, in powder, which I have every reason to believe might have amounted in quantity to upwards of an ounce at least. This, indeed, is admitted by the gentleman himself who vended the article, and whose recollection of the transaction, when questioned on the subject, enabled him besides to verify the still more important fact of the substance itself being arsenic—the white oxide, of course, of the shops. On reaching home, he took of the substance thus procured, as near as he could estimate, rather more than the one-half, and having mixed it with more than double its bulk of dry oatmeal, he distributed it equally on two pieces of broken crockery, which he placed, at bedtime, in separate places in an apartment of the house, for the purpose of destroying the rats, with which it is, it appears, infested. The operation, he says, was performed in the presence of his wife and the girl in question, in common with two or three others of the more advanced members of the family. He further particularly states his having, at the time, distinctly and repeatedly mentioned in the presence—and hearing, of course—of the family group, who were closely congregated in witnessing the interesting procedure around him, the fact of the powder which he was commixing being very poisonous in its character, and that its object was for the destruction of rats. However that

may be, his wife in the morning, took up, for the sake of greater security, both pieces of crockery containing the mixture indicated, or rather, the portions that remained unconsumed by the vermin, which she says was considerable. One of these she very properly placed in a spot beyond the possibility of reach by any of the children, while the other, quite unaccountably, she left in a place that was easily accessible by almost all. The consequence was, that, not long after, our little patient, in her rambles, came upon the dish containing the residue of the poisonous mixture, and, in forgetfulness or ignorance of what it really was, at once consumed the entire contents.

This occurred at about 11 o'clock, A. M., and in rather less than an hour and a half after, I saw her. Her mother, who seemed in great distress, informed me that the first intimation she had of the startling fact of the child having eaten the poisonous compound, was in commencing to vomit on being presented with some food. She immediately had recourse, she further stated, to the popular remedy of melted butter, which she administered in considerable quantity. This had the effect of exciting rather free vomiting, which had been repeated, it appears, two or three times. Her symptoms then were these: Marked listlessness and indisposition to reply to questions; pulse about 120, weak, and rather unequal, with occasional indications of fluttering; respiration not irregular, but rather slow, and imperfectly performed; and a feeling of sickness or nausea, with an inclination every now and then to vomit. When asked if she had any feeling of heat or pain in the throat or stomach, she gave me distinctly to understand that she experienced, in some degree, both of these sensations. The pain in the epigastric region was evidently increased on the application of the hand, and she then became fearful, and complained of the procedure. The pupil of either eye, but especially the right one, was rather remarkably, and, in cases of this kind, I believe, unusually influenced. Alternate dilatations and contractions, in rather rapid and extreme degree, were observed to occur; these were evidently still further increased on the presentation of a lighted candle, or the tip of the forefinger motioning to and fro. There was no other derangement of function deserving mention, vital, physical, or mental.

On questioning the little patient herself, she freely confessed, as she had previously done, to the fact of having eaten the powder containing the deleterious ingredient—not, she added, as plainly as she could speak it, by licking it up with

her tongue, but by introducing it into her mouth, pinch by pinch, between her fingers and thumb. On further interrogation, she equally admitted having been told, on the preceding evening, that the substance then being mixed with the meal was "poison," and what its particular object was. Her recollection of all this seemed to be quite distinct, but on still further inquiry I satisfied myself that she had not been cautioned as to its deleterious properties in reference to herself. The impression she had evidently imbibed was, that what is poisonous to the lower animals might be perfectly innocuous in reference to the human species. Want of proper instruction, or observation, or experience, rendered her incompetent to the formation of the general notion, that what is deleterious to some of the higher species of brute life is usually equally so, under certain conditions, to man. Locke, doubtless, would have regarded this incident as a happy exemplification of his well-known doctrine concerning the origin of ideas; at all events, the source of error thus became at once apparent.

The conclusion to which all these facts tend is inevitable, that the case was one of poisoning by arsenious acid. In order, however, to obviate any objection that might occur, respecting the perfectly satisfactory character of the evidence by which it is sustained, it may not be improper here to mention, that I satisfied myself, from an inspection of the substance which remained in the packet already referred to, of the fact of its really being what the gentleman who vended it stated it to have been, the common or white oxide of arsenic of the shops.

However, the only substances in the shape of antidotes that were accessible where the accident occurred, being chalk and magnesia, I prescribed a small teaspoonful of each in sweet milk every fifteen minutes.

At about half-past 4 o'clock I again visited the patient. Her condition then was this: there were evidently much sickness at stomach and indisposition to action; she had vomited twice or thrice rather copiously, and the exhaustion occasioned in consequence was clearly indicated in the general appearance presented by the countenance. The eyelids drooped languidly, concealing to some extent the eyeballs; and the features generally were relaxed, so as to give the countenance a rather expressionless appearance; the involuntary movements of the iris of either eye had in a great measure disappeared, indicating the re-establishment of the impaired nervous energy of the brain, to which they were evidently referable. The pulse was 130, weak and indistinct; epigastric region consid-

erably distended, and acutely painful on pressure; and the patient complained of a burning sensation in the course of the œsophagus and stomach. There was some thirst, but no evacuation either of the bowels or bladder. Altogether, the phenomena at this time appeared most unpropitious; she was ordered a small teaspoonful of the hydrated peroxide of iron in water every forty minutes; gum water *ad libitum*.

The result of the case may be told in a very few words. In about three hours after the first administration of the remedy, which, with the exception of the second or third dose, was well retained by the stomach, the more prominent and violent phenomena began sensibly to yield. In twelve hours more she was considered to have braved all the peril, and to be in a state of convalescence. She consumed in all, perhaps, about from three to four ounces of the ferruginous preparation, a proportion greatly in excess to the arsenic we may suppose to have been retained by the stomach after the frequent and rather copious vomitings that occurred. Considering the dose of arsenic ingested as between one and two drachms—and I think it could not have been less—there would probably be rejected in the fluids vomited fully three-fifths, leaving in the stomach little short of a scruple, perhaps, to be acted on by the iron. Hence the remedy compared with the poison must have been considerably in excess. I shall only further add, that the diarrhœa which supervened passed off in little more than forty-eight hours, requiring only some castor oil and demulcent drinks.

The length to which the details of this case have run, prevents me from adverting, in this place, to the results of recorded experience in favor of the rust of iron, either in the moist or dry state, as an antidote to poisoning by arsenic. On consulting the periodical medical literature of these countries for the last eight or nine years, several instances strikingly illustrative of its efficacy are to be found. Within this period, eight or ten such instances may be found reported in the pages of "the Medical Gazette," (vol. xv., p. 448; xvi., p. 832; xix., p. 177;) "Medico-Chirurgical Review," (vol. xxxiii., p. 534;) and "the Lancet," (vol. xxxviii., p. 625; xl. p. 275.) For the details of these, some of them very interesting cases, I must content myself by referring to those publications.

Before concluding, it may not be improper to mention the method employed by me in obtaining the preparation of iron in question. This consisted simply in adding to the liquor of chloride of iron, water of ammonia, collecting the precipitate, dissolving in water, and finally throwing it on a filter. The

object of wasting the peroxide of iron precipitated in this manner is to remove any excess of ammonia with which it may be charged. This I consider worthy of very particular observation, as the irritating effects of the alkali in any quantity must obviously, where the local irritation or inflammation is considerable, prove highly prejudicial, and be a source of further mischief.—*Bulletin of Med. Science*, from *Lon. Lancet.*

Efficacy of Calomel in large doses in Typhus Fever aided by Cold Affusions. By Joshua Burgess, Esq., Surgeon, London. Typhus is the typification of disease of membranous tissues, beginning with the pituitous membranes: the serous and mucous linings of the large cavities; the mucous linings of the alimentary, gastric, and intestinal canals; the epithelium; and, above all, the skin, the extensive covering of the surface of the body; all being more or less implicated, directly or indirectly, in the progress of typhus.

The great extent of membranous tissues, beyond all others, in the animal organization, their important and almost universal function, and their singular sympathy in health, disorder, and disease, sufficiently explain the inveteracy of the character of typhus.

I am induced to make these remarks prefatory to attempting to explain the *ratio medendi* of calomel and cold affusion in the treatment of typhus, a few observations upon which I submitted to you in your number of the 14th of September.

Every form and degree of membranous inflammation is attended with the phenomena, and characterized by some of the symptoms, of typhus, and it is an interesting inquiry, if disorder, or irritation only of membranous tissues, be not accompanied by mitigated symptoms, which range under the phenomena of typhus, excepting perhaps those cases in which the spinal axis and ganglionic periphery of the nervous system are implicated, and when the vascular system becomes secondarily and partially disturbed.

All the exanthemata have the typhus type.

If it be assumed, as above, that the great mucous surfaces, including the skin, so universally expanded over the external and internal parts of the animal structure, in and through which transpiration, exhalation, absorption, secretion, and sensation, are so wonderfully performed, are the seats of disease in typhus, the remedial agency of calomel and cold affusion is not difficult of solution.

The skin, including the epithelium, being, as above stated, the most extensive tissue in the human organization, important results must attend the derangement of its functions, whether exhalent or secreting, death speedily resulting from that condition, which Dr. Willis has graphically described as producing over the surface "an impervious glaze."*

The slimy secretions with which the gastric and intestinal canals are congested, impair or destroy the functions of digestion or assimilation; the condition of the skin, covered with a clammy and tenacious gum; the sordes plugging up the cavities of the fauces; internal and external ears, eyes, nose, lips, and even extending over the nails and hair roots—all combine to produce the characteristic and formidable symptoms of typhus.

I will not stay to discuss the proximate or remote causes of typhus, which would be irrelevant to the present inquiry; nor say in what locality or region the disease originates, as the question at present turns upon a *status quo*, upon circumstances and conditions assumed, and which will afford sufficient for present discussion, although I am prepared at the proper opportunity to discuss these points.

If I may be permitted to use a rather fashionable expression, I should say, the reflex action of typhus is cerebral. I consider this to be the fact, since the cerebral symptoms are never entirely relieved till either the skin or the bowels are sufficiently and amply acted upon, use what topical means you may.

The access and progress of typhus is slow, and the predisposition in the constitution must be strong, and of long duration; and the last has probably more influence than any contagious influence whatever. The elements of disease have been accumulating through the media of bad or low diet, bad clothing, intemperance, exposure, malaria, anxiety,

> "——— and the thousand natural shocks
> That flesh is heir to,"

till some slight and accidental disturbance, either gastric, hepatic, intestinal, or cerebral, calls them into action, and the whole train of phenomena which constitutes the typhus type becomes developed. In the milder cases, the febrile paroxysm

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* Vide "Medical Gazette," July 12, 1844: On the Special Function of the Skin, by Dr. Willis.

is of the remittent character, in its worst forms; when it becomes continued, the arterial, venous, capillary, and exhalent vessels are highly congested; and only that the indistinctly marked stages of rigor or collapse are succeeded by febrile accessions of an intense character, the state of comatose lethargy so characteristic, may be justly compared to a living death.

In this condition, when the vital powers have become nearly subdued, neither mild nor temporizing remedies will rouse the slumbering functions, an impulse must be speedily obtained, directly, through the vascular system, and indirectly, over the ganglionic and cerebral functions; this is best obtained by large doses of calomel, aided and succeeded by cold affusion.

Calomel, in large doses, acts proximately as a sedative, without losing any of its well-known valuable qualities as an alterative, upon the absorbent and glandular structures. The first good it produces is sound, calm, undisturbed sleep, to which the patient has been long a stranger, during which the ganglionic, absorbent, and glandular systems are silently invaded by its alterative agency; the intestines become filled with secretions, ready to be removed by any mild cathartic, (*e. g.*, small doses of neutral salts,) exhibited periodically and regularly, to make them patent; the dose of calomel should be renewed every night, (without any other medicine, only the neutral salts, in solution with infusion of senna and the mindererus' spirit,) and repeated till the functions approach their normal state. The cold affusions over the naked surface of the body are to be practised daily, by throwing over it, while in a sitting posture, a bucketful of cold water, during the acme of the febrile paroxysm.

The breathing becomes more free, and the stertor, so frequently present, gradually subsides; the pulse, from having been oppressed and feeble, yet quick and wiry, becomes compressible, free, and bounding, increased in volume, and diminished in frequency; the peculiar expression of countenance, now collapsed, anxious, and cadaverous, with a cold, lead-like, lack-lustre expression, the eye injected, and the sardonic grin and incoherent mutter quivering on the lip, also subside; the subsultus tendinum and picking of the sheets also cease, and a profuse sweat pervades the surface, the skin becoming relaxed, soft, and elastic, and its temperature gradually restored to a uniform healthful and natural condition.

If cold affusion be supposed to have no specific agency, which I nevertheless think it possesses, in stimulating and strengthening the capillary and exhalent vessels, and the vas-

cular and nervous systems, thus giving tone to the function of the heart, equalizing the circulation, and removing congestions, it at any rate possesses that quality which has been already so successfully excited in the gastro-enteritic systems, of washing away and effectually removing morbid secretions, of opening the mouths of the exhalents, and restoring transpiration, so long interrupted, and which very probably has acted as a remote cause of disease.

One of the phenomena attending the results of this practice is the wonderfully increased action of the absorbent system; the absorbents appear to become rapacious and greedy; and when, from their previously impaired state, effusions or morbid deposits in the tissues have taken place, this increased action becomes singularly developed in their rapid removal.

The ascaris lumbricoides very commonly infests the intestinal and alimentary canals in typhus, as also in the infantile fever of children, when the slimy secretions are in both instances characteristic of the attendant disease, and in both of which their expulsion, or creeping away, is the harbinger of recovery.

The mercury remains too short a time in the system to produce any specific irritation, or hypercatharsis; the intestinal canal, having long been torpid and insensible, renders the calomel comparatively inert as a cathartic, covered as it and the whole of the alimentary passages are with slimy mucus, and its sedative influence on the ganglionic system passively producing profuse secretions, the passages become a vortex, rendered potent by the Epsom, Glauber, or other neutral salts, the natural sensibility of the passages being only perfectly obtained after the necessity has ceased for the administration of the large doses of calomel, and the whole quantity of the calomel taken has been detected again in the stools, ("partly as sulphuret of mercury,") and from its difficulty of solution no doubt can exist of its being in this state wholly rejected in the stools, although in its progress it has produced decided and important results.—*Bulletin of Med. Sci.*, from *Lon. Lancet.*

Diseases of the Negro Population. By Daniel Drake, M.D., in a letter to Rev. Mr. Pinney:

MEDICAL INSTITUTE OF LOUISVILLE, Nov. 15, 1844.

DEAR SIR: Since our interview in Cincinnati, I have been so much engaged in entering on my duties for the winter, as to be unable till now, to comply with your request, for some

notice of the diseases of the colored population of the South and West. As I told you then, my inquiries were chiefly made in Alabama, Mississippi, and Louisiana, in the spring and summer of 1843 and '44. Of the diseases of which I am about to mention, I witnessed most of the varieties, but the greater and better part of my information was derived from conversations with physicians, planters, and overseers, carefully noted down at the time. By referring to these, I give you the following statement:

1. Many infants die of trismus, or lock-jaw, when they are but a few days old; after that early age, convulsions, and summer sickness, (cholera infantum,) and worms, carry off quite a number.

2. They are liable to measles and scarlet fever, both of which were prevailing (but especially the former) on many plantations which I visited; which diseases seem to be as fatal to them as to the whites.

3. Scrofula or king's-evil is of frequent occurrence; and consumption, or cachexia Africana, as it has been called, is prevalent and always fatal.

4. On many plantations the strange habit prevails of eating dirt or clay, the common soil of the fields, particularly that of the Mississippi bottoms, producing serious and fatal diseases. I was told of one estate in South Alabama, on which fourteen slaves had died from this cause, and visited another in Louisiana, on which I saw nearly half that number unable to work from the same practice.

5. A disease of the heart, conjectured to arise from dirt-eating, destroys quite a number. I met with several cases, and heard of a plantation on Red River, where more than thirty died from this malady.

6. Tetanus or lock-jaw from wounds, is extremely common and almost uniformly fatal. Some cases occur without previous wounds. A physician in Alabama told me he had, in fifteen years, met with at least fifty cases, nearly all colored people, and all but one mortal. I met with several young physicians in the smaller towns, who had, respectively, met with more cases than have occurred in Cincinnati from its first settlement.

7. Diarrhœa and dysentery, of frequent occurrence, are often fatal.

8. Where the cholera was epidemic, in 1832, '33, and '34, it swept off great numbers; was more destructive, in fact, to the colored than the white people of the Southwest.

9. Epidemic erysipelas, or black tongue, has prevailed on many plantations within the past year. I was told of one, in Mississippi, on which seven had died of it.

10. The colored people are not proof against the cause of yellow fever, but as they are not numerous in the cities and towns, where only it prevails, the mortality from this disease is not great.

11. Acute inflammations of the lungs are among the most destructive diseases of the colored population. These are catarrh, croup, bronchitis, pleurisy, and pneumonia, or inflammation of the substance of the lungs, which is the most frequent and fatal of the whole. These maladies often destroy life in a few days; but sometimes the patient recovers with his lungs rendered permanently unsound. I saw many cases of this kind. This group of diseases, produced by changes of weather in winter and early spring, occasions more deaths than any other, except the next.

12. Intermittent, and remittent fevers; simple, and malignant or congestive, are the greatest outlets of human life among the people of whom I am speaking. They return every year in the latter part of summer and in autumn, and one attack is no security against another. When they do not prove fatal, they leave behind them diseases of the spleen and dropsy. In the following winter those who were down in the autumn, are tender and often die of inflammation of the lungs.

In addition to the diseases I have named, others occur now and then, with considerable frequency, of which I may mention rheumatism, epilepsy, colic, hysteria, and several infirmities peculiar to women.

From this catalogue you will perceive that the colored population of the Southwest are by no means exempt from a variety of formidable diseases. As we come further north tetanus and autumnal fever get less, but consumption and inflammations of the lungs increase. All over the region of which I have spoken, the greatest part of the practice of every country physician is among the colored people. A gentleman in Louisiana told me that he received a salary of $1,200 a year for attending on a single plantation. From all I have read and heard on the diseases of Liberia, my impression is, that if half the colored population of a Southwestern plantation were sent to the colony, they and their descendants, in ten years, would number more than those left behind.

With great respect, I remain, dear sir, your obedient servant,

DANIEL DRAKE.

Mr. PINNEY. *Col. Herald.*

An Improved Mode of Managing Blisters. By John Key Robertson, M.D., Glasgow.—The improvements I beg to suggest are the following. The common empl. canth. of the pharmacopœia is to be used:

I. It is generally spread on leather.

It should never be spread on leather, but on thin paper, (partially sized, or printing paper,) or upon soft linen. Leather, by the heat of many parts of the body, becomes dry, partially crisp, and with difficulty adheres to the skin, producing, even if the blister were otherwise good, an impossibility in many instances of acting well and generally over the whole part intended to be blistered, from not being over the whole extent of the blister in contact with the surface of the body. The linen or paper has no such objection, and clings easily and to anywhere. I invariably use *paper*, and straps to secure it, above these a small pad, and then a bandage.

II. It is generally spread very thick.

It should be spread very thin—a mere covering of the paper or linen is all that is requisite. The thickness partakes of the objection already mentioned with reference to leather; and as no more than the mere surface of the blister can act on the skin, to make a blister thick is, in addition to rendering it in many places difficult of application or adhesion, sillily throwing away, or wasting, a rather expensive substance.

III. It is a very common practice to cover the surface with powdered cantharides. *This should never be done*, but, instead, a few drops of olive or sweet oil put on the surface of the spread blister, the oil, by means of the finger, being rubbed into its surface and allowed to remain.

There are several objections to the practice of putting powdered cantharides on the surface of blisters. In the first place, a good one does not need it. In the second, a bad one wont be made good by its being there, as dry cantharides act very triflingly, or not at all, on the skin; and again, if the blister act it is troublesome to remove from the surface, thereby increasing the chances of stranguary by absorption, or forcing us to tear off the cuticle to obtain its removal.

The active property of Spanish fly is soluble in fixed oil. This, it may be said, is perfectly well known; possibly it is well known; but while the simple empl. canth. of the shops will act occasionally tolerably well in summer, in winter it is far otherwise; the vehicle is then almost solid, and my proposal is a means of obtaining the activity of the Spanish fly at all seasons, and independently of ordinary counteracting circumstances. Its activity by this means is not only rendered

certain, but *more intense*, much less time being necessary to blister than usual, six to eight hours being quite enough, and even less will do where time is of importance.

The skin requires no preparation whatever—*stranguary never follows with me.* They are dressed afterwards in the ordinary way, with cotton. If the oil has been rubbed into the blister a few hours before being used, so much the better.

Circumstances, which I need not detail here, have forced me to have a blister on my own person this week. I used one as advised here. It rose beyond anything gentlemen, using the ordinary blister, in the ordinary way, are accustomed to see, and gave me little or no annoyance.—*London Lancet.*

Extirpation of the Uterus for Complete Inversion.—M. Velpeau has recently extirpated the uterus in a case of inverson, the result of labour, which had existed four years, and threatened the life of the woman through the continued hæmorrhage which it occasioned. After bringing down the uterus by means of double hooks, (erignes,) ligatures were passed through the base of the tumor which it formed, and it was then excised. From the account given of the operation, it is rather difficult to understand how the ligatures were applied. In another case in which M. Velpeau operated, three months ago, it appears that the base of the tumor was traversed with two ligatures, and they were then tied circularly. Owing, however, to the gradual retraction and ascension of the divided surfaces, the ligatures slipped off. In this case, therefore, it is stated, that the ligatures were placed from one side to the other and united in front, so as to approximate the divided surfaces, as in the operation for hare-lip. The patient died of peritonitis a few days after the operation.

M. Velpeau has operated by excision on a woman who recovered. He has lost another patient by hæmorrhage, and has met with three other cases of complete inversion; he has therefore seen six cases in all.

London Lancet, from *Gazette des Hospitaux.*

Charges for Homœopathic Services.—Perhaps the following report of a suit for the recovery of fees for homœopathic practice, in Cincinnati, Pulte *vs.* Woodruff, may not be unacceptable to physicians generally, since it contains not only the opinions of eminent medical gentlemen of that city on the

value of homœopathy, but an expression of the opinion of a jury also. We are indebted for the abstract to the Botanico-Medical Recorder, for which work it was drawn up by a distinguished legal gentleman.

This was a suit to recover a bill of $92, for services rendered the defendant, as a physician.

The defence was that the bill had been settled and paid, and also that the services were of no value.

As to the first point, there was various testimony, pro and con.

As to the second point, it was proved that the plaintiff was employed as a homœopathic physician, and the defendant introduced witnesses for the purpose of proving that medicine administered upon the homœopathic system could not be of any use to the patient. On behalf of the plaintiff, Drs. Peck and Price were examined. Dr. Peck testified that he was educated in the allopathic school, and practised several years, that within some three or four years he had abandoned that system and adopted the homœopathic system; that the two systems did not differ so much in the medicines used, as in the mode and manner of administering them—that in the old system large doses of medicine were given for the purpose of operating upon the bowels, the stomach, or some other vital organ—that in the new mode they gave medicines in such minute quantities that it would not operate upon these organs, but would be incorporated into the system through the nerves and blood, and thus produce its corrective effect. He stated that the homœopathics gave mercury in doses as small as the three hundredth or one thousandth part of a grain. That homœopathics never gave calomel for the purpose of specifically affecting either the bowels or the salivary glands—that they never designed to produce either alvine evacuations or salivation, nor would calomel, administered upon the homœopathic system, ever produce either of those effects—that it was a rule of homœopathic practice never to give but one kind of medicine at the same time, in other words, never to give compound medicines—but their medicines were varied from day to day, as the symptoms varied—that their medicines were mostly given in pills or a powder of the sugar of milk; some, however, were given in liquids—that the homœopathics had two or three hundred different kinds of medicines, which were mostly prepared in Germany, but some in New York. That one material difference, in practice, between the allopaths and homœopaths, was, that the former gave written prescriptions for medicine, which the patient purchased of the

apothecary, but the latter always furnished his own, for which he made a distinct charge—that the usual charge was a dollar a visit, and twenty-five cents for medicine.

On being asked if the homœopathic system was not rapidly increasing in the United States, Dr. Peck stated that there were six or seven practitioners upon that system in Cincinnati, sixty or seventy in Philadelphia, about the same number in New York, and about twenty in Boston.

Dr. Price stated that he had been educated in the old school, but within a few years had paid some attention to homœopathy. He stated, however, that he was not, and had not been for some time past, in general practice. His testimony coincided with the testimony of Dr. Peck.

On the part of the defendant, Drs. Wood and Harrison were examined. Dr. Wood stated that he was a practitioner of medicine on the old system—that he was in the habit of giving calomel to his patients, when he thought their cases required it—that it was a very powerful and a very dangerous instrument in unskilful hands; that it required all the skill they were able to acquire to enable them to use it successfully, without injury to the patient—that, from his knowledge of the human system, and of the laws by which it was governed, he did not believe it possible that such minute doses of calomel, as he understood the homœopaths were in the habit of administering, could produce any perceptible effect, nor could he conceive that any medicine administered in such minute doses as the thousandth part of a grain, could affect the system either in sickness or health. The thousandth or three hundredth part of a grain of calomel, taken into the stomach, day by day, for any length of time, would mix with the food and pass off with the fæces, but he could not conceive that it would ever affect the bowels, the salivary glands, the nerves, or any other organ. Dr. Wood had no particular knowledge of the plaintiff or his mode of practice.

Dr. Harrison testified that, being a lecturer and teacher of medicine in the Cincinnati College, he had considered it his duty to make himself acquainted with the homœopathic system of medicine—that he had read the work of Dr. Hahnemann, the original inventor of the system, besides some other works—that in his opinion it was based upon mere hypothesis or the assumption of facts, which never were and never could be proved—that it was contrary to the laws of nature, in regard to the human body, so far as we know them; and that those who believed in it, had no other foundation for their belief than credulity or superstition. That the word homœopa-

thy was derived from two Greek words, one signifying *similar*, and the other signifying *suffering*. That the fundamental maxim of their system was *similia similibus curantur*—like cures like, or whatever will produce disease in a well man, will, if administered in minute doses, cure a sick one. If opium in large doses produces headache and stupor, then opium in small doses will cure that headache and stupor; and if wine or brandy in large doses produces inebriety and vomitings, then wine or brandy in small doses, one drop, or the hundredth part of a drop, will cure that inebriety and vomiting. Dr. Hahnemann states that he made his discovery in consequence of taking a large dose of Peruvian bark when in health, which he found to produce shaking and a headache, and he thence concluded that Peruvian bark given in minute doses would cure the fever and ague. Dr. Harrison further stated that the homœopaths gave medicines for symptoms and not for disease. If they found a patient vomiting, whether the vomiting was caused by inebriety, pregnancy, inflammation, or any other cause, they administered the same medicine. If the patient was suffering a violent pain in the head, the same remedy was applied, whether the pain proceeded from inebriety or inflammation of the brain. He further stated that it was a dogma or first principle of Hahnemann, and of the homœopathic practitioners, that the more a medicine was triturated or diluted, the more powerful it became, and it might be triturated to that degree that the human system could not bear it, but would explode; thus the tenth part of a grain of calomel, when properly triturated and mixed with the sugar of milk, was more powerful than a grain, and the hundredth of a grain more powerful than the tenth, and the thousandth more powerful than the hundredth, and so on indefinitely—that according to the theory of Hahnemann, an ounce of calomel or laudanum put into the Ohio river at Pittsburgh, would, if properly triturated and diffused through the whole body of the river, by the time it arrived at New Orleans, become so powerful as to poison and destroy all who drank of it. This theory Dr. Harrison considered gratuitous and fanciful; yet upon this theory it is, that the homœopaths administer the thousandth part of a grain of calomel. Hence Hahnemann mentions that smelling a medicine is often more efficacious in curing a disease than swallowing it. Dr. Harrison confirmed the testimony of Dr. Wood, that none but experts or proficients should ever administer calomel, especially to women of delicate constitutions. Dr. H. was asked whether there was not a large number of physicians in Cincinnati who practised

on the botanical system, and repudiated calomel altogether; but he declined answering the question, as it had nothing to do with this case. Various other testimony was offered respecting the character, education, and qualifications of Dr. Pulte.

Verdict for plaintiff for $27 50.

Boston Medical and Surgical Journal.

Professor Mütter, in his introductory lecture, gives the following treatment in pleurisy, pursued by Trousseáu, of Paris:

"The operation is nothing more than the evacuation of the fluid in cases of acute pleurisy, by an opening made into the thorax by the following process: 'A small incision is made in the skin, between the seventh and eighth ribs, a little to the outside of the heart. The *skin* is next raised until the incision corresponds to the intercostal space immediately above, and then an ordinary abdominal trocar is introduced to the depth of about two inches. On the spear being withdrawn the fluid rushes out, and in order to prevent the introduction of air into the chest, the *pavilion* of the canula is wrapt with a strip of bladder or gold-beater's skin, which is raised by the fluid as it passes out, but which falls on the orifice during deep inspiration, and effectually closes it. During the discharge of the fluid, an assistant compresses the abdomen so as to push up the diaphragm and thoracic parietes—and after its escape, the canula is rapidly withdrawn, the incision pushed down to its original position, and closed with a small piece of adhesive plaster.'"

Cure of Nævi by Croton Oil. By M. Lafargue.—Five or six punctures should be made on and around the tumor, with a lancet dipped in the oil, just as in vaccination. Each of the punctures causes immediately a pimple, which in thirty-six hours is developed into a little boil. These boils unite, and form a red, hot, painful tumor, covered with white crusts, and resembling a small carbuncle. Two days afterwards the scars separate, and in lieu of the nævus is seen an ulcer which is to be treated on general principles. It would be dangerous to make more than six punctures on a very young infant, as the irritation and fever are considerable.

London and Edinburg Monthly Journal.

Report of Cases of Scarlatina, having relation to the question of the contagiousness of that disease. By J. K. Mitchell, M.D., Professor of the Practice of Medicine in Jefferson Medical College of Philadelphia.—Some years ago I was summoned to attend at the residence of an intimate friend, two of whose children, aged four and six respectively, had been simultaneously attacked by convulsions. On my arrival, they were quiet and drowsy, the spasmodic movements having entirely ceased. These children were, at the time of attack, in different apartments, and while the mother was busy in aiding the elder, who happened to be in her chamber and presence, one of the servants brought the other in her arms from the parlor below. No difference in time or symptoms marked distinctively these cases.

I inferred that either these children had taken some poison at the same time, *per orem*, or had been exposed at the same instant to some noxious *effluvium*, or that they were simultaneously attacked by a contagious disorder. As the patients were soon restored to sense and animation, and complained only of a sense of oppression, and presented much heat of skin, and very rapid pulses, (135 and 142,) I supposed that they were about to have scarlatina; a disease at that time epidemic to a moderate degree.

The most careful inquiry could detect no instance of exposure to a case of that disease. The children had been confined to the house by the inclemency of the wintry weather, and no visitor had been received from any infected quarter; neither was there any case in the immediate neighborhood. These appeared sufficient reasons for a doubt as to the correctness of my suggestion, on the part of the head of the family, who believed in the propagation of scarlatina solely by contagion. But on the following day, *about twenty-four hours* after the attack, the characteristic eruption of scarlet fever put an end to the difficulty as to the nature of the disease. The cases were then attributed to general causes, atmospheric or epidemic; but as no other children, of which there were many in the immediate vicinity, were seized, the question of origination seemed still difficult to perfectly settle.

The cases pursued the usual course, neither of them being as severe as might have been expected from the violence of the onset; but both were, by symptoms and stages and consequences, fully characterized.

After the inquiry as to origin had ceased, the severe illness of the child of a friend of the family, *unheard of before*, led to an apparent solution of the difficulty. It was then remem-

bered that exactly eight days before the attack of the children, a frock had been borrowed from that friend as a pattern; and both the children, being nearly of one size, had tried it on. That frock, being a favorite of the child then ill with the scarlet fever, had been hung on the post of the crib to please it; and had been, when sent for, wrapped up in the sick-room, and thus conveyed, without thinking of contagion, to the house of the borrower, at a distance of nearly two squares.

Three years after the period at which these two cases happened, a commercial gentleman, of high character and beneficent activity, was accosted at the door of his warehouse by a poor woman who carried in her hand a basket of cakes. She stated that her child was dead of scarlet fever, and that she had been compelled to go out in search of the means of making a decent interment. Having had some previous knowledge of the woman, and believing her story therefore to be true, and wishing to aid her, he bought, at a high price, the cakes and the basket, and he and his son, a youth of fifteen years of age, without due consideration, ate some of the cakes. About a week afterwards, on the same day, both were seized with a chilliness followed by fever, sore-throat and scarlet rash, characteristic of scarlatina, and were subsequently very ill. At that time scarlatina prevailed in the district of Southwark, but I did not know of a single case in the city proper. The woman was from Southwark.

The apparent capriciousness of the contagious principle in scarlatina, must have been observed by almost every practitioner. In one instance, the introduction of a case into a family or village has been followed by a general prevalence of the disease in the house or town, while in other and numerous instances it has ceased with a case or two; seeming to languish under apparently the most favorable circumstances. This discrepancy can be explained only by the supposition that, as in certain floral conditions, unfertile germs or cells are sometimes produced, or that there is found in the air, or the physical condition of the recipients, disqualifying potency. The only other probable assumption is that of the existence of two different diseases, so much alike in external phenomena as to forbid discrimination, in the present state of our knowledge.

That the second of these suppositions is sometimes, if not always, the most probable, is sustained by the fact that the virus of *variola* and *vaccinia*, when carefully selected in one place, sometimes fails to propagate disease in another place. Even small-pox, when brought from sea into the Sincapore

Hospital, did not for nearly two years extend to the residents of the house or the place, while, during that period, all the efforts to vaccinate were abortive. So soon, however, as the vaccinators were successful, the small-pox was observed to spread also. The new doctrine of the propagation of contagious diseases by cells or their nuclei, which possess a qualified vitality and power of assimilation and reproduction, leads to the opinion that these germs are sometimes destroyed or disarmed by some other poison.—*Medical Examiner.*

Treatment of Hydrocele with Iodurettted Injections.—In more than three hundred cases of this complaint treated with an iodurettted injection, (composed of tincture of iodine four parts, and distilled water one hundred and twenty-five parts,) by M. Velpeau, not a single accident or unpleasant symptom has ever occurred. One of the patients, indeed, died; but the fatal result in this instance proceeded from a purulent inflammation of the cellular tissue of the pelvis, quite unconnected with the operation, and not having any communication whatever with the affection of the scrotum. The average period for effecting the cure was fifteen days. In one case only the injection found its way into the tissue of the scrotum, in place of the tunica vaginalis; notwithstanding this misadventure, no appearance of gangrene supervened, and the patient recovered without any unpleasant accident.

Med. Chir. Rev., from *L'Experience.*

Death of Dr. Abercrombie.—It is with great regret that we announce to the profession the death of Dr. John Abercrombie, which took place, suddenly, at his house, York-place, Edinburgh, on Thursday morning, November 14.

Dr. Abercrombie was the son of the late Rev. Mr. Abercrombie, one of the ministers of Aberdeen. He took his degree at Edinburgh on the 4th of June, 1803, writing for his thesis, "*De fatuitate Alpina.*" After studying in London for six months, he became a fellow of the Royal College of Surgeons, Edinburgh, and settled in that city. At this period Drs. Gregory and Munro Saunders were in full practice as consulting physicians. Dr. Abercrombie commenced as a general practitioner, but from the first he succeeded in gaining, to a remarkable extent, the confidence of the public. His success is said to be owing to the assiduous attention he

paid his patients. This he carried to an extent previously unknown, frequently visiting them three or four times a day. His unusual success created many rivals and enemies; these he disarmed, and even ultimately converted into friends, by the inoffensiveness of his conduct, and frequently by practising the Christian doctrine he professed, of returning good for evil. In 1808 he married a lady of considerable fortune, which enabled him to keep his carriage. In 1806 he made his first communication to our respected contemporary, the Edinburgh Medical and Surgical Journal, entitled, "A Case of Cynanche Laryngea." It is inserted in the twelfth volume of that periodical. In the pages of its subsequent numbers he became a frequent contributor, and they will be found to contain most of the cases and observations which he afterwards embodied in his well-known works on the pathology of the brain and abdominal organs.

On the death of Dr. Gregory, in 1821, he became a candidate for the chair of physic, held by that distinguished physician. Dr. James Home, however, at that time very popular as a professor of materia medica, was translated to the chair of physic, and was succeeded by the late Dr. Duncan. Dr. Abercrombie now joined the Royal College of Physicians, and gradually became the first consulting physician in the Scottish metropolis. In this capacity he acquired an extent of practice and public confidence which distanced all competitors.

Notwithstanding the harassing nature of his avocations, the contributions of Dr. Abercrombie to medical literature were numerous and important. In 1820 appeared his *Researches on the Pathology of the Intestinal Canal.* In 1828 was published his celebrated work entitled, *On Diseases of the Brain and Spinal Cord.* It has been translated into most of the European languages, and has gone through three English editions. This was followed by an enlargement of his work *On the Intestinal Canal*, called *On Diseases of the Abdominal Viscera*, of which a second edition was required in 1830. In this year also he gave the public a book *On the Intellectual Powers and Investigation of Truth*, of which popular work several editions have been published. This was followed, in 1832, by *Suggestions on the Malignant Cholera*, and in 1833, by *the Philosophy of the Moral Feelings.*

In 1835 Dr. Abercrombie was elected lord rector of Marischal College and University, Aberdeen, and published his inaugural address, which afterwards appeared in an enlarged form under the title of "Culture and Discipline of the Mind." In

1834 the University of Oxford conferred upon him the degree of M.D., and he was elected one of the vice presidents of the Royal Society of Edinburgh.

In 1841 Dr. Abercrombie had an attack of paralysis, from which, however, he soon recovered, and resumed the active duties of his profession. His health remained good up to the moment of his decease. On Thursday, November 14, 1844, after eating a hearty breakfast, he was preparing to go out, as usual. The carriage was at the door, but as he remained longer than usual, a servant entered his private room, and found him lying on his face, dead.

On the following Saturday a *post mortem* examination revealed the following facts: The brain was very large, weighing forty-six ounces, but healthy in structure throughout. The pericardium was distended with blood, which had been poured out from a laceration in one of the branches of the coronary artery, about four lines in length.

In reviewing the reputation of Dr. Abercrombie as an author, we cannot but feel surprised that he should have attained so eminent a scientific position, independent of those means which with other men are necessary to its acquirement. He was never physician to any public hospital or dispensary, and all the facts with which his works are enriched were derived from private practice. Yet his treatises on the brain and abdominal organs embody a mass of the most interesting cases and observations, and constitute most important contributions to the subjects of which they treat. Moreover, they tended to maintain and extend the scientific claims of British physicians, and this notwithstanding the *éclat* deservedly enjoyed by the pathologists of France. His philosophical work, *On the Intellectual Powers*, &c., may still be considered the most interesting and lucid introduction to a study of the mental faculties, although it emanates from the same school which boasts of Dugald Stewart, of Reid, and of Brown. In his latter years, Dr. Abercrombie, by his writings, extended, in no small degree, a knowledge of the principles of revealed religion. The short essays he published on sacred truths have been most extensively read, from twenty to thirty thousand copies of each having been sold in a few years.

The private life and conduct of Dr. Abercrombie were not only irreproachable, but distinguished by the utmost philanthropy and good will towards all men. In him all the public charities of Edinburgh have lost a supporter, and many are the instances which might be related of the assistance he has rendered his professional brethren when in distress. Amongst

others may be mentioned the case of a general practitioner, who, from a train of adverse circumstances, being declared bankrupt, received from Dr. Abercrombie the sum of one hundred guineas, on the day his effects were sold.

The confidence he enjoyed amongst the profession was deservedly great. He never attempted to supplant a brother practitioner, or ingratiate himself with the public by means unworthy the dignity of the physician. His manner towards a patient, indeed, was characterized by great taciturnity, although never by rudeness. All his appointments were kept with scrupulous exactitude, and to this, as well as the gentlemanly conduct he pursued in his consultations with the profession, must be attributed much of the extensive confidence they placed in him up to the moment of his death.

London Lancet.

Succinate of Ammonia—a remedy for Delirium Tremens. M. Scharn has successfully employed the succinate of ammonia for the cure of delirium tremens. The most furious delirium is quieted by the remedy as if by magic, and the disease cured by it in a few hours without the aid of any other medicine.—*Jour. de Pharm.*

Willoughby Medical College.—The number of students in the Willoughby Medical College, this season, is 126, being an increase of 76 on the class of 1843, '44.

THE WESTERN JOURNAL.

NEW SERIES.—VOL. III.—No. II.

LOUISVILLE, FEBRUARY 1, 1845.

INTERMITTENT, REMITTENT, AND CONGESTIVE FEVER.

Dr. Barbour, Professor of Obstetrics in Kemper College, has lately published, at the request of his class, an excellent pamphlet on the above subjects. He gives his own observations on these diseases, and the practice which he lays down is that in which a large majority of the physicians of our country would unite in recommending. He is an advocate for the liberal use of ice and iced drinks, and for small doses of calomel, and large doses of quinine—the practice which is beginning to obtain in all the regions where the purging system once prevailed so exclusively. In fevers of the remittent type his experience is, that quinine given during the remission, is as efficacious as it is in intermittent fever. We like his suggestion of *muriatic acid* as a refrigerant in fevers. He directs a drachm of the acid, diluted with a pint of iced or cold spring water, to be drank in the course of the day. He thinks it acts favorably on the liver, being often sufficient of itself, after the use of mild aperients, to correct the secretions of that organ. In chronic intermittents—cases in which, on slight exposure, chills continue to return, for a long time—we have found the preparations of iron more

effectual than any other remedies. Change of air, especially from miasmatic to healthy regions, is doubtless beneficial, and the alterative medicines mentioned by Dr. B. are indicated in those cases which are complicated with visceral enlargements; but in a majority of instances patients affected with this form of the disease exhibit the signs of anemia, and are cured by remedies which improve the condition of the blood. Nothing does this so effectually as iron in its various states. Y.

MEDICAL EXAMINER.

This journal has been much enlarged, and in an improved dress is to appear monthly, in future. This makes room for longer communications, and it is the intention of the editor to devote more of its pages to original articles. The Examiner is one of our contemporaries whose time of appearing we expect with pleasure. It is spirited, but courteous, independent and frank in the expression of opinions, by which it sometimes provokes an angry retort, but its tone is elevated, and its criticisms generally just. Its reputation has been steadily growing since its establishment, and it gives promise of taking a permanent place among the medical periodicals of our country. Y.

EPIDEMIC ERYSIPELAS.

We perceive by the public papers that this serious malady continues to visit different neighborhoods and often proves fatal. It appears to prevail more in winter than in summer, and to affect the country more than the towns, especially the larger. Louisville for the year past has given evidence of the existence within her limits of its remote cause, whatever that cause may be, but the number of cases has not been great. In the hospital, more have occurred than for several years before—some spontaneous, and some following surgical operations. Very lately, the extraction by Professor Gross, of a large tumor from the angle of the jaw of a negro man, from the country, in excellent health, was followed by severe, though not fatal erysipelas of the face and head. We hope our friends where the disease prevails will furnish us with accurate histories of it, for

publication. Among the points to which we would especially direct their attention are, its connexion with puerperal fever, and its contagiousness D.

RATE OF MORTALITY AMONG THE STUDENTS OF THE MEDICAL INSTITUTE OF LOUISVILLE.

In its eight sessions the Institute has had 1594 pupils. For our present purpose we shall call it 1600, or 200 annually. Many of them arrive in October, some as early as the latter part of September, and the candidates for graduation, with a number of others, remain till the 10th or 12th of March. Some continue throughout the vacation. Thus, although all are not in by the first of November, and a very considerable number depart before the end of February, still it cannot be far from the truth to regard the whole 200 as sojourning in Louisville for one-third of the year. Three sessions, then, would give a residence equal to a year to 200, and eight sessions would give a residence, for the same number, equal to two years and eight months; but as one month of the present session has yet to run, we shall throw off two months, and come to the conclusion that the residence of medical students in Louisville, since the foundation of the school in 1837, has been equal to that of 200 for two years and a half; or 500 for one year. Now, of the whole but one has died during the sessions of the school. Several, it is true, have left it in bad health, and *may* have died after reaching home, and before the expiration of the session, but no case of that kind is known to the Faculty.

Taking the average annual date of mortality, in the community at large, at the low number of one in fifty, that in the Institute being only one in 500, is but a tenth part as great. We confess that this result surprises us. To what shall we ascribe it? In casting about for the causes, the following occur to us:

1. A large number of the deaths, in general society, are of children, and aged persons.

2. A great number are from the fevers of summer and early autumn.

3. Students, during the session, are but little exposed to inclemencies of weather.

4. With a rare exception, they do not drink ardent spirits, or wine, or malt liquors, to an extent injurious to health, and a majority either practice total abstinance, or taste intoxicating drinks but moderately, and at long intervals.

5. Students of medicine, during their attendance on the lectures, make *early* application to the professors for medical aid, and generally submit to the required treatment, whereby many of their diseases are arrested in the beginning.

6. Louisville is not far enough north to be subject to the typhoid fevers, which prevail in higher latitudes in winter; and even its pulmonary inflammations are neither frequent nor violent.

Of the pupils of the Institute, 783 or within a small fraction of one-half, have been from the States south of the northern boundary of Tennessee, in latitude 36° 30′. The single death which has occurred is one of them, a native of North Carolina, but a resident of Mississippi. Thus there has been only one death out of 250 southern young men residing in Louisville for a year, the whole being in cold weather. This fact proves conclusively that this city is within those limits, to which the young men of the south may with safety be sent to pass the winter. Indeed, we are disposed to believe, from observation, as well as theory, that many of them are benefitted by a winter sojourn here, as it respects the ravages which their constitutions have experienced from the protracted heat and malarious atmosphere of the south. It is an admitted fact, that pneumonia prevails in the south and often proves fatal, because, the enfeebled constitutions of the people, will not endure an active antiphlogistic treatment. The lungs are destroyed by engorgement, unaccompanied by a well developed inflammatory diathesis. But after an individual, enfeebled during summer and autumn, has spent a few weeks in this higher latitude, his vital powers are so elevated, that true inflammation, and a genuine phlogistic diathesis are set up, and yield to free depletion and the ordinary antiphlogistic medicines. To generalize, we venture to express the opinion that pneumonia is more manageable on the banks of the Ohio than the Alabama river—on the Upper than the Lower Mississippi. D.

SIXTH ANNUAL REPORT OF THE OHIO LUNATIC ASYLUM.

In acknowledging the receipt of this Report, we are happy to say, that it presents the Asylum as everyway prosperous and successful. In six years, 541 patients have been admitted, of whom 243 have been cured, and 23 discharged in an improved condition; making together but a fraction less than half. Of this number 195 were recent cases, and 71 old, or of more than a year's duration, before admission. These two facts are worthy of all attention. The first shows, that insanity is by no means an incurable malady; the second, that its curability is in proportion to the early stage of the disease, in which treatment is commenced. In private practice, such treatment, that is the appropriate, is seldom practicable; and we know of no disease, which more imperatively requires to be made a *speciality* than this. The number of cases which ordinarily fall to the lot of a private practitioner, are too few to give him the requisite experience; and, with very few exceptions, whatever, may be his skill, his prescriptions, both medicinal and moral, cannot be carried out, while the patient remains at home. Every State in the Union ought to have one or more hospitals for the insane. In the Valley of the Mississippi, Kentucky, Ohio, Tennessee, and Louisiana have erected them; and Indiana has moved in the good work; but, we believe, Alabama, Mississippi, Arkansas, Missouri, and Illinois, have not as yet entered upon it. We hope our brethren in those States will do justice to our benevolent profession, by reminding their legislators of their duty in this matter.

In casting our eyes over that part of the Report which was contributed by the indefatigable medical superintendant of the establishment, Dr. Awl, we find the following fact, which seems worthy of being placed before the profession:

"The months of December, January, and February, 1843–'4, were particularly severe upon our epileptic patients. Their convulsive paroxysms were increased in number and severity, followed by an extraordinary sinking and prostration of the vital powers, occasioning death in the three instances mentioned, and an unusual amount of suffering and weakness of body and mind, for many days, in all who survived. We observed something of the same kind of suffering with this class of patients, about two years since, when, as upon the last occasion, it appeared to assume the form of a special endemic amongst the epileptics. All others continued to enjoy their

ordinary health. It was characterized by very frequent returns of the epileptic spasms, with strong tendency to apoplexy. The pulse was remarkably small, weak, and fluttering; features dull, unmeaning, and sunken; mind lost, or imbecile, attended with great exhaustion of physical strength. On both occasions, it was wonderful to observe how the most robust were enfeebled and fallen, and how long time it required for them to regain their former strength and condition of mind and body. A hired girl in the Institution, subject to occasional epilepsy, was also observed to suffer from the same train of symptoms. With the last appearance of this peculiar endemic, the weather was unusually mild and open for the season, and the country extensively inundated, from continued rains; the thermometer being greatly elevated, and the barometer depressed, for a long period of time."

For the information of such of our readers, as, residing in States which have no asylums, might direct their insane patients to be taken to that of Ohio, we may as well state, that they cannot be received, as the present buildings are not sufficient for the insane of that State, and new ones are now in the course of erection. Even the present edifice, however, is the largest in the Valley of the Mississippi, and the institution, in all respects, must be admitted to stand before every other in the West. It may, indeed, be advantageously compared with the best eastern institutions, for while it is inferior to some, it rises above many others, in the number of its patients, and the success attendant on their treatment.

D.

PRIZE ESSAYS.

The committee appointed to award the premium for the best essay on the *Health of the Clergy* not being able to agree as to which was the best, decided to divide the prize between the authors of the two having the highest claims. It was accordingly awarded to Dr. Sutton, of Kentucky, and Dr. Cogley, of Indiana, in equal sums. The successful essays have been published in the Protestant & Herald, and will probably be issued in pamphlet form. Y.

THE

WESTERN JOURNAL

OF

MEDICINE AND SURGERY.

MARCH, 1845.

ART. I.—*Observations on the Botany of Illinois, more especially in reference to the Autumnal Flora of the Prairies.* In a letter to Daniel Drake, M.D., &c.

MY DEAR SIR:

The interest which you have long taken in every thing relating to the Natural History of the Western States, and the desire which you have so frequently expressed to connect the study of Botany with the pursuit of medicine, will, I trust, be a sufficient apology for my addressing these observations to you. Having, moreover, very recently yourself traveled over a part of the country to which they refer, you will be the better enabled to judge of their correctness.

In a tour which I took through the State of Illinois, a few years previous to your own, I had the pleasure of being ac-

companied by my brother, and one or two other individuals, who took a considerable interest in the objects which mainly prompted my journey; and traveling in a light covered wagon, well prepared for making extensive collections, and vigilantly on the look-out for every object of interest, I may safely say that few such escaped our observation. Our visit to this interesting region was made in the latter part of summer, and extended so late into the fall, that severe frosts had put an end to vegetation before our return; so that my remarks must be considered as referring to the *autumnal Flora* of the Prairies, and may not be applicable to that of the spring, or early summer. We entered the State of Illinois from Terre Haute on the Wabash river, near the line dividing that State from Indiana; thence we traveled in nearly a north-western direction to Peoria, on the Illinois river; through Paris, Urbanna, Bloomington, and Mackinaw: and returning we took a more southern route through Tremont, Springfield, Hillsborough, Maysville, and Lawrenceville to Vincennes; where we recrossed the Wabash, which here forms the boundary between the States of Indiana and Illinois. This trace extending over a distance of nearly 400 miles, led us through the central portion of the State in two different lines, at a considerable distance apart, and gave us an opportunity of seeing and examining the face of the country and its productions under a great variety of aspects.

In a Geographical point of view, the surface of Illinois may be very appropriately, as it is naturally, divided into three districts. First—The heavily timbered tracts which for the most part occupy the southern portion of the State, bordering on the Ohio river, and which, extending into the middle and northern portions, are found in detached bodies surrounded by prairies, and in these situations are called 'Groves.' These groves are, for the most part, contiguous to, and often bounded by water-courses, which have preserved them from the action of fire. Secondly—The open prairies, of from one to twenty miles in diameter, entirely destitute of

trees, and indeed of all other woodly plants, except along the margin of water courses which occasionally pervade them. Thirdly—'The Barrens,' or tracts somewhat intermediate between the two former, being sparsely covered with oak trees of several different kinds, and of considerable size, with a dense undergrowth of various shrubs and annual plants. This third region bears a close relationship, both in appearance and productions, to those districts in Kentucky, which are called 'Barrens'—tracts of country which seem to be in a state of transition from more open prairies to densely timbered forests.

The vegetation of these three districts is, of course, essentially different; but apart from the presence or absence of trees, which constitute the grand feature of distinction, the annual and suffruticose plants are widely different, and indeed in many respects entirely dissimilar. It is, however, to the productions of the open prairies that I shall chiefly confine myself in this communication: and even they vary greatly as the surface of the prairie may be high, rolling, rich and dry, or low, flat, wet and clayey.

The first sight of a prairie with which we were greeted was in the neighborhood of Terre Haute, on the eastern side of the Wabash, and consequently in the State of Indiana. In approaching this new and apparently thriving town, from the east, over the national road, the eye is filled with the prospect of an extensive plain entirely destitute of all timber-trees, and stretching to a great distance both above and below the town. Such a view, agreeable at all times, was peculiarly so as it opened suddenly upon us just after emerging from the heavily wooded forest through which we had traveled all day. The Terre Haute prairie, however, has been all reclaimed, or rather, botanically speaking, desecrated by the hand of man, and no portion of it now remains in a state of nature. Corn, grass, small grain, and other cultivated crops now occupy the hundreds of acres, which lately bloomed and blossomed with indigenous productions; and almost the only relics of these to be seen, were occasion-

ally on the road-side, or in fence-corners, a few plants of *Verbena stricta* and *Vernonia corymbosa.*

Twenty miles west of the Wabash at this point, we met with the first prairie in a state of nature; and from this, extending northward to the Lakes, and westward to the Mississippi, they continue, increasing in magnitude, and interrupted only by occasional groves of timber, so as to occupy by far the largest portion of the central, eastern, western, and northern portions of the State of Illinois.

On fairly entering the prairie region, and reaching the centre of one of these immense natural meadows, the view presented to the eye of a novice in such scenery, is one of the most pleasing sort. But beautiful, imposing, and even grand as is this spectacle, I must own, that in a botanical point of view, I was disappointed! The Flora of the prairies—the theme of so much admiration to those who view them with an ordinary eye,—does not, when closely examined by the Botanist, present that deep interest and attraction which he has been led to expect. Its leading feature is rather the unbounded profusion with which a few species occur in certain localities, than the mixed variety of many different species occurring any where. Thus from some elevated position in a large prairie the eye takes in at one glance thousands of acres, literally empurpled with the flowering spikes of several species of *Liatris*, among which the most predominant are *L. spicata*, *L. squarrosa*, *L. scariosa*, *L. cylindracea*, and *L. pycnostachya.* In other situations, where a depressed or flattened surface and clayey soil favor the continuance of moisture, a few species of yellow-flowered *Coreopsis* occur in such profuse abundance as to tinge the entire surface with a golden burnish. The species of this genus more commonly met with in such situations, were *Coreopsis trichosperma*, *C. senifolia*, *C. tripteris*, *C. palmata*, &c., &c. This peculiarity of an aggregation of individuals of one or more species, to something like an exclusive monopoly of certain localities, obtains even in regard to those plants which are the rarest and least frequently met with; for whenever one specimen was found

there generally occurred many more in the same immediate neighborhood. The *Dalea alopecuroides*, (Willd.), which I met with but once, was found in that locality in the greatest abundance. The *Satureja hortensis*, which I believe is not regarded as indigenous to North America, was seen once by us in the greatest profusion, and that, too, in a situation the least favorable to the idea of its having been introduced—the centre of a large prairie, where no settlement could have been made. At some places between Peoria and Springfield the road-sides and even the beaten path, were so completely covered over with the little *Boebera chrysanthemoides*, that, trodden under our horses' feet, it exhaled a strong and nauseating odor. In many such localities this noisome weed seems to take the place of the *Anthemis cotula* and *A. arvensis* (Mayweed and Dog-fennel,) in the more settled portions of the Western States. In the neighborhood of Springfield, again, and especially in the out-lots of that town, we found the ground covered, to the exclusion of almost every other vegetation, with a small species of *Ambrosia* (*A. bidentata*) which, at the season in which we saw it, being out of flower, and ripening its dark-colored seed, gave to the common an aspect as dreary as "the bleak and blasted heath where Macbeth met the witches." In illustration of this peculiarity of the Botany of the prairies, I will only further remark that we did not observe the little *Erigeron divaricatum* until we reached Bloomington, in the commons of which town it is extremely abundant; and that it ceases to occur, or is but rarely seen, a few miles south of that.

There are, indeed, comparatively speaking, but few plants, except the grasses, (which are gregarious every where, and are intermixed in greater or less degree and variety among all the other plants of the prairies,) which may be considered as indigenes of the prairie region generally.—Among these we may mention, as occurring most constantly, and under greater diversity of soil and situation than any others, the *Silphium gummiferum*, *Parthenium integrifolium*, *Kuhnia critonia*, *Ceanothus intermedius*, (which here takes the

place of *C. Americanus* in the Barrens of Kentucky,) ***Prenanthes Illinoensis, Eryngium aquaticum, Petalostemum violaceum, Dracocephalum Virginianum, Baptisia leucantha,*** several species of ***Liatris, Coreopsis, Aster,* Solidago,† Rudbeckia,‡ Helianthus,§ Pycnanthemum, Gerardia, Pedicularis, Gentiana,*** &c., &c. Those two beautiful plants, for our knowledge of both of which, I believe, we are indebted to Mr. Nuttall, the ***Aster sericeus,*** and ***Amorpha canescens,*** are very generally diffused, but not in the same abundance with many others. Indeed, they constitute an exception to the habit of congregation which obtains among so many of their associates.

As is the case, I believe, with the American Flora throughout the United States, and, indeed, the whole Continent, the autumnal botany of the prairies exhibits a large preponderance of the *Compositæ.* Besides those already mentioned, we may here enumerate, as of frequent occurrence, ***Chrysopsis mariana, Helenium autumnale, Boltonia glastifolia and B. asteroides, Bidens frondosa and B. chrysanthemoides, Eupatorium serotinum, E. aromaticum, E. ageratoides, E. purpureum, E. perfoliatum, &c., Cnicus glutinosus, C. Virginianus, C. muticus, C. altissimus, &c., Silphium laciniatum, S. integrifolium, S. terebinthinaceum, &c., Prenanthes aspera, P. virgata, P. racemosa, P. serpentaria, &c., Vernonia fasciculata, V. corymbosa,*** and one or two other species.

In a farmer's, or rather a grazier's estimation, the grasses would be regarded as the most valuable of the natural productions of the prairies; and we will next mention some of

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* *Aster lævis, A. Novæ Angliæ, A. rigidus, A. gracilis, A. phlogifolius, A. concolor, A. azureus, A. undulatus, A. multiflorus, A. oblongifolius, A. turbinellus, A. carneus,* &c.

† *Solidago rigida, S. nemoralis, S. graminifolia, S. Ridellii, S. serotina, S. speciosa, S. Ohioensis, S. nèglecta,* &c.

‡ *Rudbeckia purpurea, R. laciniata, R. hirta, R. subtomentosa, R. pinnata,* &c.

§ *Helianthus angustifolius, H. rigidus, H. occidentalis, H. grosse-serratus, H. tomentosus, H. mollis, H. pubescens, H. microcephalus, H. tomentosus, H. lætiflorus,* &c.

those which are of most frequent occurrence, omitting all reference to the allied tribe of *Cyperaceæ*, but few of which were observed, in consequence, perhaps, of the late season at which our visit was made. Among the most predominant of the *Gramineæ*, on the rich, dry, and rolling prairies are several species of *Andropogon*, as *A. furcatum*, *A. ciliatum*, *A. mutans*, *A. scoparium*, *&c.*, *Aristida tuberculosa*, *A. stricta*, *A. gracilis*, *&c.*, *Elymus Canadensis*, (var. *glaucifolius.*) *E. Virginicus*, *E. mollis*, *&c.*, *Trichodium laxiflorum*, and *Vilfa heterolepsis*. In flat and marshy situations these give place to various species of *Panicum*, as *P. geniculatum*, *P. agrostoides*, *P. dichotomum*, *P. virgatum*, *P. latifolium*, and the universally diffused *P. crus-galli*, *Leersia Virginica*, and *L. oryzoides*, *Spartina polystachya* and *S. cynosuroides*. All these grasses in their young and tender states are eagerly devoured by cattle: as they become harder and less succulent by age, the coarser are rejected and the more tender are sought for. Among these, I believe, the *Vilfa*, before mentioned, is a general favorite, both for grazing and for hay. All of them, however, are cut promiscuously for this purpose, and when they occur, as frequently they do, in large natural meadows, occupying the ground to the almost entire exclusion of other vegetables, they yield a productive return to the labor of the mower; and when well cured make excellent hay. Our horses, which had never before been accustomed to any other than the cultivated grasses, ate this natural hay with great avidity. The quality of these grasses, both for pasturage and mowing, is much improved by the burning of the prairies during the winter, which, destroying the dead and dry stems, affords a better and earlier bite in the spring, as well as a cleaner swath for the scythe: and by protecting certain portions of the prairie from the action of fire until the spring or early summer, vegetation is then so much retarded by a 'late burn,' as the settlers call it, as to afford good pasturage throughout the latter part of the season.

To this action of the fires, which probably for ages have annually passed over these plains, consuming in their progress

all relics of vegetable matter, both woody and herbaceous, is perhaps to be mainly ascribed the color of the soil, which for the most part is literally as black as coal, and in some situations of two or three feet in depth. And to this excess of carbonaceous matter, imparted to the soil of these prairies, is it perhaps to be ascribed that their productions, both in cultivated crops and natural growths, are by no means so rank or luxuriant as one might be led to expect. The Indian corn, though well-eared, was not so tall as I have frequently seen it in Kentucky and Ohio, on lands apparently much inferior in fertility; the different kinds of small grain, though heavily-headed, had a much shorter straw; and many of the natural productions, common to the Illinois prairies and the barrens of Kentucky, were less luxuriant in growth than I have observed them to be in the latter district, though the soil of the barrens has not the same appearance of fertility. This subject deserves particular investigation, and an accurate analysis of the prairie soil might lead to very useful practical deductions. One of our fellow-travelers, a farmer by profession, ascribed the appearance, above mentioned, to a 'sourness' in the soil. But the amount of carbonaceous and alkaline matters resulting from such frequent burnings would rather lead to an opposite conclusion.

Among the œconomical and medicinal plants of the prairies may be mentioned *Gentiana ochroleuca*, the roots of which have somewhat the bitterness of the officinal species, (*G. lutea*, of Europe,) *Prenanthes serpentaria*, several species of *Liatris*, the tuberous roots of which are possessed of acrid pungent qualities, and *Eryngium aquaticum;* all these plants have a considerable reputation, which perhaps is but little deserved, against the bites of poisonous serpents, and hence they are known indifferently by the names of 'snake-root,' 'button snake-root,' rattle-snake's masterpiece,' &c. *Frasera verticillata* is not so frequently seen in the more open prairies as in the thinly-wooded barrens. *Polygala Senega* and *Asclepias tuberosa* are abundant in both these localities. The different species of *Silphium* mentioned, exude from their

stems a pearly resinous matter, very similar in appearance and sensible properties to turpentine, and used for the same purposes. The roots of the beautiful *Petalostemum violaceum* have a warm pungent quality, which suggested its employment, among the thousand other articles, in the treatment of cholera, and the plant is now known on the prairies as the 'cholera-weed.' Our two most valuable indigenous bitters *Eupatorium perfoliatum* and *Sabbatia angularis* are abundant, and *Aristolochia serpentaria* is seen occasionally in the groves, where various species of dogwood (*Cornus*) are also of frequent occurrence. Mr. J. A. Lapham, of Wisconsin, informs me that in that territory, the *Amorpha canescens* is called 'lead-plant,' from the circumstance of its growth being considered indicative of the presence of that mineral. If the same sign should hold good in Illinois, the whole of the prairies may one day become a mining region.

Ferns are remarkably rare on the prairies; indeed I do not recollect having met with a single specimen of any species of that extensive tribe in the more open prairies. This may, perhaps, be owing to the absence of that shade and constant moisture in which most of these plants delight. On the skirts of the timbered tracts, several kinds occur, which are usually found in the barrens, as *Pteris aquilina*, *Polypodium dryopteris*, and *P. hexagonopterum;* and in the 'groves' I observed many other species common in the Western States. The same remarks will apply, in a good degree, to the tribe of mosses.

I deem it improper to close these desultory remarks, without giving a catalogue, at least, of other common plants, which presented themselves at different places on our route through the prairies. Some of them may have been already incidentally mentioned, but the most of them occurred under circumstances not calling for particular note or comment. They are given as I find them in my note-book, without any kind of order or arrangement.—

Verbena stricta,
V. hastata,
Gerardia purpurea,
G. flava,
G. erecta,
G. auriculata,
G. quercifolia,
Petalostemum candidum,
Desmodium, } of various species.
Lespedeza, }
Euphorbia corollata,
Gaura angustifolia,
Typha latifolia,
Cassia chamæcrista,
C. marilandica,
Monarda fiistulosa,
Leptandra Virginica,
Lythrum hyssopifolium,
Pedicularis pallida,
Gillenia stipulacea,
Parnassia palustris,
Gentiana rubricaulis,
G. quinqueflora,
Sium latifolium,
Archemora rigida,
Artemisia caudata,
Polygala verticillata,
P. ambigua,
P. incarnata,
Linum rigidum,
Potentilla fruticosa,
Psoralea floribunda,
Boottia sylvestris,
Plantago cordata,
P. aristata,
Cissus Canadensis,
Chelone glabra,
Angelica triquinata,
Epilobium lineare,
Lysimachia revoluta, &c.

Doubtless many other species came under our observation, but being so common in other parts of the Western country, I omitted to note them.

In relation to the botany of the prairies, I have only to add a few remarks on the shrubs which are found among them; for although in the more open districts of this kind no ligneous or perennial stems are permitted to escape the ravages of the annual fires which sweep over them, yet on the margins of 'sloughs,' and along the courses of the small streams which occasionally meander through them, clumps of bushes and clusters of shrubbery are always to be found. These 'roughs,' as they are called, furnish welcome retreats to grazing cattle, and sometimes to the traveler's horse, from

that annoying pest of these regions—the prairie fly.* In these thickets the more common productions are the hazle, (*Corylus Americana*,) three species of sumach, (*Rhus glabrum*, *R. copalinum*, and *R. aromaticum*,) several dwarf kinds of plumb, (*Prunus*,) of which the species were not ascertained, two or three varieties of dogwood, (*Cornus sericea*, *C. asperifolia*, *C. alba*, *&c.*,) several species of undetermined willows, (*Salix.*) Besides these, may be mentioned the *Amorpha fruticosa*, *Zanthoxylum fraxineum*, (prickly ash,) *Prinos verticillata*, *Ilex prinoides*, *Aronia melanocarpa*, *Spiræa tomentosa* and *S. salicifolia*, *Symphorea racemosa*, *Cephalanthus occidentalis*, *Rubus*

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* I regret that I am not Entomologist enough to give the scientific name of this fly. It is, however, but too well known, both by name and its effects, to all those who have had the misfortune to pass through their haunts during the season of their prevalence, which begins in June, and only ends with the recurrence of hard frosts in the fall. I cannot do better, in this place, than to extract from the note-book of one of my fellow-travelers, his account of this tormenting insect:—

"At length fairly on the prairie, its ocean-like expanse—its' multifloral hues, and the strange aspect of everything around us, especially of the far-off head-lands of timber, melting into the horizon with 'the mist of blue' which distance gave them, caused us all for some moments to be mute with rapture and admiration; from which delightful trance we were soon aroused by observing the woeful condition of our panting and stamping horses. In fact every part of them not protected by cloths, was covered by blood-thirsty—blood-sucking flies. These insects, unlike all others of their kind I have ever seen, fall upon their prey without buzzing, circumvolation, or prelude of any sort: they dart with the rapidity of shot from the fowler's gun, and as soon as they have touched the animal on which they alight, seem already bedded in his skin, from which they are not to be dislodged but by main force and violence. So greedy were they, and so intent upon one sole object, that they suffered themselves to be pinched off the horses; and so perfect seemed their blood-sucking apparatus, that hardly had they alighted an instant, when on being brushed off, they appeared already gorged with their sanguine food. Vengeance on our part, and commiseration for our horses, induced us frequently to stop, for the purpose of slaughter; and in a few moments our blood-stained hands, and the heaps of slain in the road, gave evidence that we spared not, and were as merciless as the foe whom we encountered.

villosus, (blackberry,) *Ribes rotundifolium*, called Illinois gooseberry, of which the fruit, though spinous, makes a delicious tart; together with various species of wild roses, grape-vines, &c.

Though not properly falling within the compass of this communication, the object of which has been to give some account of the autumnal botany of the prairies, yet before I close it, I will venture to add a few remarks on the forest trees of Illinois. These, in the main, do not differ from the productions of similar districts in the timbered lands of Indiana, Ohio, Kentucky, and Tennessee. In Illinois, the richest groves, interspersed through the prairies, are constituted mainly of the same kind of trees which indicate the best soils generally in the Western States, as black walnut, hickories, hackberry, (*Celtis crassifolia*,) sugar-maple, pawpaw, (*Porcelia triloba*,) &c. The thinner lands are clothed chiefly with oaks of various species, hickories and gums, (*Liquidambar*

We thought, too, at first, that we were relieving our horses, *pro hac vice* at least, of their torturing assailants; but a very little observation soon made it manifest that where we killed one, a dozen more keen and insatiable would arrive. So there was no way of stopping with a view to relief—the gauntlet had to be run, and the sooner it was over the better. Indeed, an old prairie traveler afterwards told us, in answer to our wonder, expressed at the naked condition of his horses, that the worse the flies were the more rapidly he drove. Such a course, however, appeared to us inhuman; and our horses, good and true though they were 'as ever looked through a halter,' gave evidences that they were not used to such leeching; and we were truly glad when, nine or ten miles on our road, a resting-place presented itself on the skirts of a forest. It is a most fortunate circumstance that these flies do not infect the woodlands, though immediately adjoining their haunts in the tall, thick herbage of the prairies; and we were told that so disgusted are they with the odor of a stable, they will not pursue an animal that takes shelter in one, however rudely and openly constructed of common round logs, without any *chinking* of its various apertures. From my recollection of Western stables generally, I think this fly evinces a great deal of good sense in avoiding them. It is, indeed, a clean, bright, and beautiful insect, of variegated green-and-golden burnish, about the size of, and not unlike the Spanish blistering fly."—*MSS. Notes on a Tour through Illinois, by* J. Cleves Short.

styraciflua and *Nyssa* of two or three species,) whilst the poorest soils, those especially of the 'bushy barrens' and 'oak openings,' are occupied mostly with the different kinds of oak, among which the post-oak, (*Quercus obtusiloba*,) and black-jack, (*Q. ferruginea*,) are most prominent. I am able, indeed, to indicate but two trees which are in any way peculiar to the forests of Illinois; and these are the paccan and catalpa. Of these the paccan (*Carya olivæformis*,) is found abundantly on the southern borders of the State, where about Shawneetown and other points on the Ohio river, it constituted a large portion of the original forest; and from these districts great quantities of the nuts have been exported. They are not considered, however, to be equal, either in size or flavor, to the paccan-nuts of Texas. The other tree—the catalpa, (*Catalpa cordifolia*,) I have the authority of General Harrison for saying, is found occasionally, and of large size, in the alluvions of the Wabash river, where he considered it to be certainly a native; in opposition to the opinion of the Abbé Correa, who thought it more probable that the seeds may have been derived from trees planted by the early French settlers of Vincennes and other posts. I have seen this tree in similar alluvions among the dense forests of Henderson county, Kentucky.

Whilst walking over the prairies adjoining the town of Bloomington, in company with our friend Dr. John F. Henry, who resides there, he pointed out to us an extraordinary phenomenon in connexion with vegetation, and one only visible, I suppose, in a prairie country. It was a semicircular, or rather horse-shoe-shaped line of herbage, distinguishable very plainly from the surrounding and included growths, by its darker or deeper green hue. He said that these circles or segments of circles, usually of fifteen or twenty feet diameter, were frequently to be seen in summer, and that it was generally believed they were occasioned by lightning. He described the thunder-storms of this region as sublimely majestic and terrific. We had no opportunity of witnessing this display of Heaven's artillery, during our journey; but

in two or three instances afterwards, I think, we observed this singular appearance of the grass on the prairies, indicating what might, perhaps, without impiety, be called 'the foot-prints of the Deity!'

Very respectfully and truly, I am,
My dear Sir, yours,
C. W. SHORT.

Professor DRAKE,
Medical Institute of Louisville,
February, 1845.

ART. II.—*A Case in which a sharp-pointed body was swallowed by a child, passing the bowels without injury.* By B. W. AVENT, of Murfreesboro', Tenn.

On Thursday evening, 8th July, I was requested to visit a little girl, four years old, who, whilst engaged at play, had accidentally swallowed a sharp-pointed instrument, about two and a half inches long. This instrument was originally the handle of a long-bladed knife, the jaws of which had been filed off about its centre, leaving the back-spring, which had been ground very sharp at its point.

I saw the patient an hour after the accident had occurred, and as might have been expected under such circumstances, found the family in great alarm, and in the act of preparing an emetic, with a view to cause the stomach to eject this foreign body.

The little girl was suffering no pain at all, and on examination I was satisfied that the instrument had passed the cardiac orifice without producing any injury in its passage. Aware that the point of this instrument was sufficiently sharp to penetrate the stomach, should it come in contact with it during any contractile action of that organ, I at once explained to the parents the great danger of medical interference, and advised that the unassisted efforts of nature should be relied upon for relief, at least until some unpleasant symptoms

should arise. With this advice, I left the patient about as comfortable as if nothing unusual had happened.

On the following morning she complained of some pain in the epigastrium, but it was not of sufficient violence to excite much alarm. She took her breakfast as usual, and was permitted to engage in her accustomed amusements. After the morning, the pain in the stomach subsided. Sometime during the day her bowels were evacuated, without presenting any unusual appearance in the fæces.

On the next (Saturday) morning, she was still well, had no fever, or visceral excitement whatever, and had complained of no pain since the morning of the previous day.—Through this day she continued to be playful, and suffered no inconvenience. The bowels were once moved without medicines.

Sunday morning.—Patient still free from all excitement. At 9 o'clock this morning, just 64 hours after the occurrence of the accident, the instrument was discharged from the bowels, enveloped in fæces, without any pain, or inconvenience whatever. But little, if any, visible impression had been produced upon it during its passage through the bowels.

In the management of this case I applied no medical treatment, though often solicited to do so. I advised that the little patient should be permitted to engage in her customary amusements, and to take her ordinary diet, hoping by this course to keep her system, as nearly as possible, in a normal condition, the natural action of the alimentary canal undisturbed, and that thus, as happened, the 'unwelcome visitor' might be expelled.

Medical interference, in this case, would have consisted either in vomiting, with a view to the ejection of the contents of the stomach, or in the use of purgatives, more speedily to evacuate the contents of the bowels. In either plan of treatment there would have been great danger to the patient. The contraction of the stomach, necessary in vomiting, would undoubtedly have endangered the wounding its coats, by coming in

contact with the sharp point of the instrument, at every effort of that character, to say nothing of the great improbability of effecting the object desired; whilst, on the other hand, cathartics would not only have produced irritation of the bowels, but by carrying off too hastily their fæcal contents, might have left the foreign body behind, in a condition to wound them at every peristaltic motion.

Two circumstances existed in this case which favored the safety of the patient. First, the instrument was swallowed with the handle or blunt end downwards, which prevented its wounding the parts in its passage; and, secondly, its length prevented its taking a transverse position; either of which circumstances might have greatly endangered, if not destroyed, the life of the patient.

Murfreesboro', January, 1845.

REVIEWS.

ART. III.—*Medical Topography of Brazil and Uruguay:* with incidental remarks. By G. R. B. HORNER, M.D., Surgeon U. S. Navy; Honorary Member of the Philadelphia Medical Society, and Corresponding Member of the National Institute at Washington. Philadelphia: Lindsay & Blakiston. 1845. 12mo. pp. 296.

An interesting book might be written on this subject. The countries are comparatively unexplored by medical men, and all that might be described in them as pertaining to our profession would have the advantage of novelty. The work before us, has been compiled by a young physician, from the private and public journals kept by him during two cruises, and embraces a large amount of matter having no reference to medicine. But a small portion of the work, indeed, is strictly professional, the principal part being made up of details similar to those which find a place in the diaries of all travelers. But some of his descriptions have interest for the medical man, and from these we propose to select such as appear to us to afford the most valuable information.

We begin with his description of some of the vegetable productions of Brazil, which he represents as being exceedingly exuberant. In a single acre of uninclosed land, it will often happen, he remarks, that the traveler will see more plants than he can examine carefully in many months. Of the cactuses alone, 400 species are said to be found there,

growing upon the most barren rocks, as well as on the most fertile fields, in the moistest places, and in the dryest, in shade and in sunshine, but never beyond a certain elevation on the mountains. He gives the following interesting account of the banana:

"Of the banana, I will observe that three species are to be had, a small and a large yellow one; and a third larger than either, and of a reddish color. One of them is the fruit of the Musa paradisiaca, and two that of the Musa sapientium. The entire plant is termed bananeira by the Brazilians. The three species are alike, and are not easily distinguished. Each of them has a pithy, stout stalk or trunk, enveloped by the stems of its immense leaves, and the fruit of all is borne in a grand cluster, disposed in radiated bunches, inserted into the top of the stem, one above the other. As this continues to grow, flowers in half circles are displayed below its conical apex, from beneath one of the lowest leaf-like scales, half enveloping the base of the cone. Every flower becomes a banana; and after this, a scale on the other side of the cone parts from it, and simply adhering by its base, allows another semicircle of flowers to bloom; and thus a conical branch, composed of many circles or radients, is eventually formed, and bows the top of the stem so much as nearly to make it double. The banana is a most wholesome fruit to people generally; but if eaten largely, sometimes creates indigestion, and in moderate quantities produces costiveness—an effect owing to its astringency. This quality abounds in the whole plant, and having now become known to the Brazilian farmers they avail themselves of it for the cure of disease. To hasten suppuration and the pointing of abscesses, the fruit is fried, mixed with a little oil of sweet almonds, and applied as a cataplasm. The juice is most used as a remedy. It contains gallic acid, and according to two French chemists, Fourcroy and Vauquelin, nitrate and oxalate of potash. and is employed externally and internally. The complaints treated with it are leucorrhœa, prolapsus ani, atonic wounds, aphthæ, swelling of the legs and testes. For the cure of leucorrhœa it is employed thus: A stalk is divided at the middle by a horizontal cut; the upper end of the part remaining in the ground is scooped out and filled with sugar; this becomes saturated with the juice, in a few hours forms a syrup, is taken out in any suitable vessel, and given in a dose of a tablespoonful three times a day, or oftener according to circum-

stances. In treating prolapsus ani and hemorrhage from the rectum, it is used in the form of a clyster or lotion in town, but in the country the people, when affected with the former complaint, cut off the bananeira in the middle, sit upon the stump, and allow the affected part to remain from a quarter to half an hour in contact with its upper surface."

He gives a brief but interesting account of the coffee-tree which we extract:

"Of coffee I also will speak briefly, as its history is known generally. Most of it and that of the best quality grows upon high grounds, the sides of hills and mountans, up to a certain height, but does not prosper on the summits of even those of medium height, from the coldness of the air upon them. I have not seen it growing more than two or three thousand feet above the level of the sea. After the ground has been prepared, by cutting down trees and bushes and burning them, the coffee scions are planted in rows. These are near together; only enough space is left between them and the scions to allow the trees to attain a full size, and the fruit to get ripe. When so, it is blood-red, rather less than an inch long usually, and of half the diameter. It has a thin, pulpy skin enclosing the kernel, has a sweet, gently astringent, and aromatic taste, and is a favorite food for children. Many coffee trees grow along fences, and attain there the largest size, but the highest do not exceed fifteen or twenty feet. When the fruit is mature, and often when not, it is plucked, spread out to dry on rocks and scaffolds, then pulled and sifted: now and then it is allowed to get wet with rain, looses its greenish color, is not so plump, and less valuable in market; but by many of the best judges of it, is more highly esteemed than the green. Of the two kinds more than a million of bags are exported annually from that country, and its inhabitants consume many thousand bags besides. The total amount of coffee produced in Brazil in 1843, is estimated to have been the enormous weight of 170,000,000 of pounds, or about a third of what is produced in the whole world."

But we leave these subordinate matters to extract the account given by the author of the *Organization and Statutes of the Medical Schools* of Brazil, which, we are sure, will be

new to most of our readers. These are two in number, one of which is situated at Bahia, and the other at Rio. The latter is the principal one, and Dr. Horner gives the following description of it:

"Shortly after King John VI. fled from Portugal, and in the year 1808, he established in Rio a school of anatomy, surgery, and medicine. This school continued until the organization of the college of medicine and surgery by Pedro I, September 20th, 1826; and in October, 1832, the year after his abdication, the latter school was abolished in name, and reorganized under its present title: Escola de Medecina de Rio de Janeiro. This change was effected by the regency of the Empire during the minority of Pedro II.

The faculty of the school are the following physicians, viz:—

Director.

Manoel de Valladao Pimentel.

Lent Proprietors, or Professors.

First Year.

F. F. Allemao—Botanical Medicine and Elementary Principles of Zoology.
F. de J. Candido—Physical Medicine.

Second Year.

J. V. Torres Homem—Chemical Medicine and Elementary Principles of Mineralogy.
J. M. Nunes Garcia, (*Examiner*)—General and Descriptive Anatomy.

Third Year.

D. R. dos G. Peixoto—Physiology.
J. M. Nunes Garcia—General and Descriptive Anatomy.

Fourth Year.

J. J. de Carvalho—Pharmacy, Materia Medica, especially Brazilian, Therapeutics, and the Art of making Formulæ.
J. J. da Silva—Internal Pathology.
L. F. Ferreira—External Pathology.

Fifth Year.

C. B. Monteiro, (*Examiner*)—Topographical Anatomy and Preparations.

F. J. Xavier—Midwifery, Diseases of Pregnant and Lying-in Women, and of Infants recently Born.

Sixth Year.

J. M. da C. Jubim—Legal Medicine.
T. G. dos Santos—Hygiene and History of Medicine.
M. de V. Pimentel—Internal Clinics and relative Pathological Anatomy.
M. F. P. de Carvalho—External Clinics and relative Pathological Anatomy.

Lent Substitutes, or Assistant Professors.

A. T. d'Aquino, A. F. Martins, } Section of Accessary Sciences.
J. B. da Rosa, (*Examiner*) L. de A. P. da Cunho, } Medical Section.
D. M. de A. Americano, L. da C. Feijo, (*Examiner*) } Surgical Section.

Secretary.

Dr. Luiz Carlos da Fonseca.

"Besides the above persons employed in the school, are a librarian, treasurer, porters, messengers, and servants.

The course of instruction begins on the 1st day of March and ends on the 20th of December; on which days the whole faculty meet. They likewise do so whenever the director thinks it necessary, and summons them. He is elected by the faculty from among the professors. Some of the substitutes are allowed to vote for him, but none of them can be a candidate. The ex, or pensioned professors, when invited by a majority of the faculty, can deliberate with them, and are entitled to attend the meetings at all times. The meetings are ordinarily secret, and continue two hours; and the acts of the faculty, when exigency requires, are also kept secret. The faculty are empowered to judge of violations of the statutes of the school by any of the members, students, and persons employed in it; and before consideration of the case is made, may allow eight days to collect testimony. Should the director be guilty of misconduct, the faculty, when it is recommended by a committee of three professors, and the proposal has been taken into consideration, nominate another committee of three, to examine into the matter; and if the director be found guilty, his misconduct is made known to the government. Should he be proved not guilty, he forth-

with resumes the discharge of the duties of his office. Should he not be acquitted, and the case be referred to the government, it may reinstate, suspend or dismiss him.

"Every professor receives a salary from government of 2,000 milreas* per annum; the substitutes receive 1,200, and the director 3,000 milreas, as he acts both in the capacity of president and professor, and has the supervision and administration of the school. After twenty years service every person can retire on a pension for life; and before the expiration of that time, should bad health prevent a further discharge of the duties of his office.

"Professors and substitutes after twenty years, counting from the date of their nomination, receive pensions for life equal to the whole amount of their salaries. Should any one of them, from age or sickness, be incapaciated from duty within the first ten years of service, he receives a pension amounting to a half of his salary; and should he be disabled between ten and twenty years of service, his pension is protionately increased. Another very liberal provision is made for the faculty. If any one having completed his twenty year's service desire to continue on duty, he can do it with the authority of government, and is given an increase of a fourth of his salary; and if he be able at the expiration of four years to discharge his duties, he continues to do so upon being again authorized by government, and during the second four years receives another fourth part. The same is done at the expiration of eight years, as long as the professor or substitute continues in office; and when at last he is no longer able to keep in it, he goes into honorable retirement, and has a pension equal to the whole amount of salary received at the time of resignation.

"Rank among the faculty is determined by the dates of nomination, or by the time they entered into office, and when they were nominated at the same period, the person takes rank who first received the degree of doctor. None others than Brazilians can be appointed members of the faculty.

"Exchange of chairs can be made by them with the approbation of government, after the faculty have taken the exchanges into consideration and determined that they would be beneficial to instruction. When it has been determined that an exchange may take place, the decision is sent to gov-

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* About $1,100; the value of the milrea being reduced to about 55 cents. At par it is worth about 100.

ernment to receive its confirmation; and when it is made the exchange is published in a newspaper. In case of a chair being vacated by death, retirement, suspension, or dismissal, the same form as the preceding is observed; the person thought competent is nominated by the faculty, and if approved by it, receives his title from government. To fill vacancies the school is granted three honorary professors and six honorary substitutes. In appointments to the former distinction, substitutes who have served twenty years have the preference; and for the honorary substitutes doctors of medicine who desire to travel at public expense for scientific information, and gives satisfactory proofs of merit, and scholars of the practical school* who have received six premiums during the session, are preferred. The honorary professors and substitutes as well as the effective ones receive their titles from government. Substitutes of the former kind can confer with the latter, and supply their deficiencies in teaching without taking an active part in council.

"For an effective substitute three kinds of election are held: one for the accessary sciences; a second for surgery; a third for medicine. A candidate for the place must be a citizen of Brazil, and in the enjoyment of civil rights. He must also show a diploma conferred or approved by one of the faculties of Brazil, and produce testimony of good habits, attested by a justice of the peace in his district. Within eight days after the vacancy occurs, the director having received the approval of government, makes known by advertisement that the chair is vacated, and an election to fill it is to be held, and mention the qualifications required. Six months are allowed to furnish them; and within that period applicants have to forward the necessary documents; and such as are permitted to be candidates are enroled by the secretary, and have their persons identified by the director. Fifteen days before the expiration of the six months the secretary announces that the enrolment will be ended on the first day after the above period is terminated; and when this has hap-

* The practical school is nothing more than a part of the school of medicine, but is formed of another faculty; composed of a regent and 12 pensioners, with any number of scholars, who assist the professors in making preparations, dissecting, and experimenting in chemistry, pharmacy, &c., &c. The regent has a salary of 800 milreas for his services; and the pensioners 200 each. By pensioners here we are to understand simply graduates of the school of medicine, employed and paid by government, and not ex-professors drawing pensions.

pened he sends a list of candidates to every member of the faculty. Three days subsequently to the closure of the list a council in secret session is held, the list is read, and an examination made respecting the morality of the candidates. A secret vote is then given on them for their admission or rejection; which last is the lot of him who does not receive two-thirds of the votes of the members present. The director after the session gives an account to government of the decision of the faculty. Should no candidate be admitted, another announcement of the vacancy is made, and a period of three months more allowed the applicants to furnish the necessary credentials.

"The faculty are the judges of the election; but no member can vote who is the father of a candidate, or his relation within the second degree of consanguinity. The director acts as president of the jury, as it is called, watches over the mode of election, gives admonitions if order be not observed and can suspend the proceedings and cause the expulsion of the offender should he be a candidate, an alumnus of the school, or a stranger. The session may be continued or deferred after a new deliberation, and the director reports the whole affair to government. After preliminary proofs of merit have been given, the election of candidates proceeds; and they have to furnish actual evidences of their professional qualifications and ability to discharge the duties of the vacated chair. The first evidence is a written discourse in the presence of the jury on one of four subjects, selected the evening before the election by a committee of three members, and placed in an urn, after being read to the board. The subject drawn is the one on which the lecture must be written; and this must be done on the same day. The candidate also has, within twenty-four hours after the lot is drawn, to deliver an oral discourse upon the subject named; he must, moreover, deliver a thesis on some professional subject, and give practical proofs of being qualified for the place he seeks, and especially with regard to the subject of the thesis. On a fixed day the candidates in succession ascend the magisterial chair of the hall and deliver their written discourses, and three days after them the oral ones. At the expiration of three months from the last of the latter, the examinations upon the theses are made, and the candidates are held responsible for the moral and legal sentiments expressed in them; and forty-eight hours before the recitations they have to furnish sixty copies of their theses for the use of the faculty and for other purposes. After the candidates have read and defend-

ed their theses, the professors examine them upon them until satisfied, and then proceed to ballot; first, to decide whether the candidates be worthy of the appointment; secondly, which of them is most worthy. If there be one candidate only for the place of a substitute, a majority of one elects him; if there be two candidates the one who has the plurality of votes in three ballotings, becomes the substitute. When the election is decided, no objection on the part of the candidates is noticed, unless some informality occurred, and in this case the matter is reported to government. Should it ordain a new election, it is held, and the same candidates are taken into consideration by the faculty. But no election for the professor is held, if there be only one effective substitute who seeks it, nor does the election take place if there be not present in all the sessions, at the time the election should commence, the legal number of effective substitutes. Other modifications are made in the election of a professor;—first, effective substitutes are permitted to become candidates, and when the former are wanted, honorary substitutes are taken. Secondly, the period for qualification is only two months, the morality of the candidates is not previously judged, the written discourse is upon twelve questions, six of which relate to the different branches of medical instructions; and if the election be for a vacancy in a clinical chair, the oral discourse will be made on patients, designated in the hospital of Miseracordia.

"Finally, with respect to elections, I will state, that if they be for a physician to travel at the expense of the State, they are done in conformity to law, and after the manner determined by the faculty; but not before notice has been publicly given for twelve months previous to them, and the conditions of the travel have been made known at the same time.

"But the examinations are not confined to the professors, substitutes, nor their pupils. Every graduate of former Brazilian schools, before he can receive a title or diploma, has to present to the director such diploma, must identify his person, show the receipt of the treasurer for the matriculation fee, and the certificate of the same that the applicant has deposited with him the practical observations required. Native and foreign practitioners are obliged to produce certificates of identity and naturalization; and practitioners settled in the country previous to a resolution adopted October 27th, 1835, are required, if they wish to continue in practice, to produce

the above documents, and likewise their passports, or the certificates of their consuls, signed by the police of their place of residence in Brazil, declaring the day, month, and year of their arrival in the country.

"All physicians, surgeons, apothecaries and midwives who have settled in it the above time, or who may hereafter do so, must, before they begin practice, undergo a theoretical and practical examination. These examinations are conducted as those of the school—by two professors and a substitute, save that respecting the thesis; this examination will be made by three professors and two substitutes; but the faculty are empowered to dispense with the thesis, and establish any other proof of competency. Surgeons are first examined on anatomy, external pathology, and parturition; and secondly, are clinically questioned on two surgical cases, and obliged to perform any operation required. An equally strict examination of physicians takes place; and apothecaries are required to prove their knowldge of the materia medica, and then make the pharmaceutical preparations determined upon by the faculty. Should the examinates be approved, the director confers the same titles as on the graduates of the Fluminensian school; but if the examinates are rejected, they lose the fees deposited, and have to undergo another examination, after the same fees have been again paid, and six months have elapsed.

"From the above facts, it is evident that Brazil, though far behind the United States and other countries in most respects, has some excellent laws relative to its faculty. She affords the greatest encouragement to native talent and professional attainments, and does not allow herself to be inundated by crowds of empirics and illy educated members of the profession of medicine, who may be attracted to her shores by hope of gain, or of a reputation to be attained by their imposition, and then maintained by the credulity of the people. In this restraint on adventurers, the Brazilians consult not only the true interest and happiness of themselves at large, but especially benefit the faculty of the empire; and, moreover, protect from extortion and unnecessary pain such of its subjects as are poorest, and most apt of all others to be duped by either foreign or domestic empiricism. No cry in Brazil is heard against monopoly in the practice of the healing art, by its confinement to a few persons; nor do the faculty take advantage of such monopoly, and charge exorbitantly for services. On the contrary, they leave them to be valued by

the patients, do not send in bills,* nor employ collectors. Of course, whatever reward they receive proceeds from a sense of duty and obligation, or from gratitude on the part of the sick or their friends. For exorbitant fees then they are solely to blame; and it is not probable that these occur often unless the Brazilians are different from most nations, and voluntarily reward physicians more liberality. Their custom of leaving their fees to the means and generosity of patients, no doubt influences them in paying larger fees than they would willingly if bills were presented; but, nevertheless, the incomes of physicians, including every branch of the healing art in Brazil, are not generally large; none that I have heard of are really great and the profession of medicine in the empire is neither distinguished for wealth, nor display in dress, equipages, fine dwellings in the city, nor gorgeous residences in the country; and though highly respectable, are not as fashionable in Rio Janeiro as in some of our Atlantic cities; nor, indeed, are they likely to prosper much should as great odium be excited by them as recently by a member of the profession, whose name remains unknown to me, but has the credit of killing a patient in September, 1842. Great was the excitement caused by the reports regarding the case. The family of the deceased were kind and generous enough to conceal the name of the physician, but the prescriptions were obtained in some manner and published. The last and finishing doses were—8 grs. of sub-nitrate of bismuth, given, with several less active articles, on the 13th and 16th; and these not having the desired effect, the following were presribed to be given from 2 o'clock, P.M., to 12 o'clock at night:

℞. Infusion of lime tree, ℥ii.
Tart. emet., grs.ii. M.

Next came tart. emetic, grains *twenty*, divided into 4 parts, and lime tree electuary, 3 ounces, taken with oil of croton tiglium, 5 drops. The parturient potion of Velpeau was afwards given, and then the patient was drenched with orange, distilled, and barley water, and took an ounce of the syrup

* This statement is inapplicable to the English physicians at Rio. They follow the customs of their country, have specific fees, and send in bills generally. The common fees for a visit is two milreas in the city, and four in the country, and ten milreas for attending a consultation. Among people well off, the price of an obstetrical case varies from 50 to 100 milreas, or from 30 to 60 dollars according to their present rate.

of orange-peel. It is hardly necessary to state, that the first named prescriptions were very active if not efficacious, and the patient was vomited and purged into the next world by daylight on the morning of the 17th.

"To continue my remarks on the faculty of the school, I will observe that they exercise entire control over the students within the precincts. Should one of them during a lecture or at another time disturb the peace, the professor can command silence; if he should not obey, the order is repeated at the same moment that the offender is called by name. and pointed at. Should this be insufficient, he is commanded to retire, or the professor leaves the hall and reports him to the director. Besides penalties incurred immediately for misconduct, the students are liable to undergo others at the end of the session. At this time any professor and substitute is required to present to the faculty a tablet of observations made on the conduct of students, and to confirm them by facts. The secretary keeps those tablets in the archives, where they are not allowed to be examined without the consent of the director, and are retained for the use of the faculty and government when occasion may require. The faculty themselves are liable to punishment for misdemeanors, such as offences against public morals, neglect of public duty, and conduct notoriously scandalous and compromising their honor. A professor, for instance, who, three successive times, and without the consent of the director, or without just cause, should fail to discharge his duties by not lecturing, is liable to be brought before the academical council by the director or three professors, and to be fined in a sum equal to his salary during the days he has not performed his duties.

"The statutes with respect to students are precise. Offences are strictly defined, and severely punished when aggravated; and for the information of the students the penalties to be incurred are written down opposite acts pronounced offences. Thus, non-attendance at a whole lecture incurs one point or mark from the professor or substitute in the chair; making a noise, especially during a lecture, incurs one or two points; non-attendance to an examination is noted down, and punished by the offender being examined last, and fined ten milreas; departure before the end of a lecture and scholastic exercises requires an explanation, and receives one point from the professor present; irreverence, tumult, lampoons, caricatures, obsceneness, acts of cruelty towards the patients, offences against public morality or modesty, libels, disobedi-

ence to the order of the director, mockery and ridicule of the professors, substitutes, or attendants of the school; any attack whatever on them, any marked insubordination, affronts to fellow-students in the precincts of the school or without them, are punished by points and reprimands, and by temporary or permanent expulsion from the school, after the government has been informed of the circumstances and has given its approval."

He adds to this an account of the ceremony of conferring the diplomas upon the graduates, the conclusion of which is striking. The address of the president, and of a graduate who follows him, over, and the medals, bouquets, and diplomas, being distributed, an oath follows:

"The oath taken was the following: 'In the presence of the masters of the school and of my fellow disciples, I—F. H. de Mouro—swear on the Holy Evangelists, that in the practice of medicine I will be faithful to the laws of honor and probity.' Then he places his hand on the works of Hippocrates, and continues: 'I promise on the works of Hippocrates that practising into the privacy of families my eyes will be blind, my tongue will keep the secrets confided to me; never shall my profession serve to corrupt good manners nor to favor crime. Grateful to the masters who instructed me, I will honor them in life and respect them in memory. I will guard, as my own, the honor of my colleagues, and will never deny them the fruit of my experience. The indigent shall never cry in vain for the succors of my art. I will employ all my zeal in the diminution of their sufferings. Let men recompense me as they think proper if I should be faithful to my promises; and let me be covered with opprobrium and disrespect by my colleagues if I should ever be wanting to them.'

"The oath taken, the president continues the ceremony by saying, 'Read and meditate on the works of the father of medicine. Regulate your life by him, and men will cover your name with blessings.' The president then hands the graduate a volume of the works of Hippocrates, thrusts a ring on his finger, and says, 'Receive it as a symbol of the degree I confer; you can practice and instruct in medicine.' Having pronounced these words, the president embraces the new doctors, and, as no one succeeds him, here ends the ceremony. When this happened bouquets again were distributed, the assembly displaying their trophies dispersed, and the canon

Januario, the venerable hoary-headed president of the National Library, known by a dazzling star of diamonds on his left breast, made off with one of the largest and handsomest bouquets. He looked as pleased as a bridegroom just blessed with a wife, and, though a bachelor, reminded me vividly of the marriage of Pope's January and May, when I saw his grey head and fine flowers and was told his name."

A notice of the hospitals at Rio follows his account of the medical school. Here he saw numerous cases of leprosy, or elephantiasis, as it is differently called, of which he gives a graphic description:

"Of the nature of this disease I will speak another time; and now will merely state that I found twenty-five females and seventy-three males in the hospital affected with it, and most of them were adults; among them were some most distressing objects. Frequently one part of the body had become preternaturally enlarged while another had wasted away. Some had lost their noses, while the lips had grown to a great size, or the ears had attained almost that of a young elephant's. Others had the whole face enlarged, their legs swollen and covered with scales; while another set had lost an eye, and had it covered by a fleshy substance like fungus. A black woman had lost one foot and all the fingers, except the first phalanges, and these were flexed on the palms as if burnt by fire. Such was my impression at first sight, but on close examination and inquiry I detected my error. Several had no nails to their fingers, and these were gradually decreasing, though no sign of ulceration was perceptible. In fine, notwithstanding a number of miserable beings had their limbs enlarged, none of them had their bodies really corpulent. On the contrary, they were commonly emaciated, and indicated the want of sustenance, rather than a superfluity."

In another place he continues:

"Elephantiasis exists in every form and degree; spares no sex, age, nor condition; pays no respect to natives or foreigners; affects the poor and rich; harasses servant and master; affects the plebeian and patrician. The poor and laboring classes, however, are most annoyed by this disease; and the negro population, both the slaves and free portion, have a full share. The persons most affected with elephantiasis, strictly

speaking, and according to the derivation of the name, are those who live miserably, or are obliged to make much use of their feet, and have them frequently, and for a long time, exposed to the sun without shoes or anything else to protect them. One of the best evidences of this fact was, that I knew a sailor to bring on a violent inflammation and swelling of his feet similar to elephantiasis from such exposure. Had the irritation been kept up, I have little doubt a chronic affection would have been induced, and a permanent enlargement taken place. I have observed, also, that the laboring class of people, particularly men who stand or walk much, and women who are in the habit of washing clothes and immersing their hands in hot water or other warm fluids, have them or their forearms affected."

"Of the two forms of elephantiasis it is not easy to say which occasions the most inconvenience to the sufferers; for one lops off his members, the other enlarges them to an enormous extent; and both deprive of the means of obtaining a livelihood; one by a deficiency, the other by an excess. A seamstress and shoemaker lose their fingers by one form of the disorder; a footman and porter have their legs and scrotum so much increased by the other that the former can only stand, and the latter has as much as he can carry about his own person. A belle, ambitious of having the smallest of feet, the most delicate of ankles, has them converted into stumps, or such heavy clubs, that all elasticity of gait is destroyed; and so far from dancing well, cannot walk with common grace. A beau, desirous of displaying his finely-formed features, and causing every belle to look with admiration at his noble Roman nose, his expressively dark eyes, has the former converted into a genuine pug, or insignificant Grecian; and only one of the latter is left to view the ruins of the once sublime bridge, and the extinction of its fiery fellow orbit.

"Cases of scrotal elephantiasis are nearly as numerous, if not quite as much so as those of the feet; and the first attain the greatest magnitude of any other form. One or more instances have occurred where it was so large that a wheelbarrow was requisite to carry it; and two cases I saw of it were about four feet in circumference. One of them was that of a negro in the Miseracordia; another that of a late officer of customs, who resides in the Rua dos Bazotes, or Busson's street, which takes its name from the number of such persons residing on it. Dom Francisco H. C— had been afflicted with the complaint only three years, and he, nevertheless, had

the scrotum formed into a vast tumor of nearly the natural shape of the part. The skin was quite firm, smooth, of a reddish-white color, and felt soft, but was firm and elastic; the prepuce spread out six or eight inches around, and divided into irregular lobes, semitransparent, fungous, and entirely concealing the glans. This was embedded in the mass. His feet and legs just above the ankles were correspondingly enlarged. The first were too big for shoes, and protected by moccasins; the second were bottle-shaped, and a linen sac supported by straps held the unwieldy scrotum. Dom Francisco is no longer able to obtain a livelihood by labor, and receives alms privately. His age is fifty-six years; and as his chin and face are becoming affected more and more, he must expect to spend the rest of his life in misery beneath the weight of his irremediable disease.

"The treatment adopted to cure this or other forms of it, is illy defined and unsuccessful—a mishap to be expected, since the causes are continued, and the local complaint often depends on a constitutional affection. Lotions are the chief medicines employed, and excision has been occasionally practised. A scrótum, weighing, it is stated in the Fluminensian Medical Journal, 143 pounds, was removed, and the patient, at the time of the publication, was in a good condition. Whether he got well, is not mentioned by the journal, but I have understood he died from the operation. This has been since repeatedly performed, and it is said with success in some cases. Hence the operation can be properly recommended when medicines fail, and the disease progresses, provided the tumor has not attained as great size as above-mentioned; for its removal then requires a more extensive wound than the patient would probably be able to survive; and even if the tumor could be excised with perfect safety and certain success, it is extremely uncertain that the Bazotes would subject themselves to a long and very painful operation, and, moreover, pay a high price for removing a natural *card-table*, besides being put to the expense of buying an artificial one afterwards. This would be right-down extravagance; as it is stated, on good authority, that some of those affected with this form of elephantiasis are in the habit of sitting with the tumors before them, and using them instead of tables in playing cards. For this purpose a stool is placed under each tumor, unless rendered unnecessary by the owner sitting on the floor, or on a counter. The shopkeepers, least of all other persons, would allow the operation, when it would occasion the loss of an article of furniture so fashionable among them,

and especially as it causes them little inconvenience, is seldom in their way from their sedentary habits, and can be so easily kept upon or behind their counters, accordingly as may be necessary from the presence of male or female customers."

The climate of Brazil is a remarkably equable one. During 208 days, according to a register kept by the author, the range of the thermometer was only 25°. The period extended from June to January, in which time 63°, Fah., was the minimum, and 88° the maximum. This was on board the ship; on shore the temperature was several degrees higher. But of the climate of Brazil, says Dr. Horner, taken altogether, "it may be safely asserted that it is not excelled by the climate of any other country in the world of the same extent; and though it may be too warm for health or comfort at certain seasons, yet it is mostly unsurpassed in salubrity and agreeableness."

Our author describes Uruguay as very salubrious. He says:

"It is singularly exempt from fevers and other complaints caused by malaria; bilious, remittent, and intermittent fevers are scarcely known, and in the capital are said not to exist. Exemption from these diseases may be properly attributed to the want of marshes, swamps, and stagnant water, the undulating face of most of the state, and the dryness, if not the singular composition of the soil, and the nature of its productions. Rank vegetation is seen no where, and plants as well as dead animals parch up but do not putrify.

"A form of typhus fever, termed febre cerebral by the citizens, prevails sometimes at Montevideo, and in 1838 destroyed many of them treated after the ordinary method pursued there. Venesection proved a fatal remedy, and Dr. Carduret, convinced of this fact, forbid it altogether, resorted to less debilitating means, and acquired great celebrity by his uncommon success. I was told by a member of a family in which he was employed that he excited thereby great jealousy among his professional brethren, and from misrepresentations about him he was put in prison, and when let out forbid to practice until by the efficacy of his prescriptions to patients who flocked to his house, as he could not go to their residences, he convinced the public of his merits. He was then permitted to practice again wherever called, and now enjoys both a high reputation and a full purse."

Physicians he represents as being scarce—

"The greater part of Uruguay is wretchedly supplied with practitioners in medicine, and it is still worse off for those in surgery. The most illiterate quacks are the sole members of the healing art in many places, and even in the national army a want of well-educated medical men exists to a great extent. According to what I could learn, it has no regular medical corps, and goes into battle destitute of even the most incompetent surgeons. A gentleman informed me he saw the stump of an arm, shot off in a battle, dressed and healed with cow-dung; and an old Gaucho present, when he told me this, stated he knew a soldier who received five lance wounds in the body, and had the whole of them cured by the application of the above sovereign remedy, kept moist by the urine of the same valuable domestic animal from which it is procured, being poured through the cloths enveloping the poultice and patient."

As the fees are high, here would seem to be an opening for some of our young graduates. Dr. Peixoto's charges for operations, according to his published schedule, are as follows:

"For trepanning he charges $100; for tying the carotid artery $500; for lithotomy $1,000; for the Cæsarean section 2,000 patacons."

The climate of Uruguay is subject to greater variations than that of Brazil. The range observed by our author was from 42°, which was in August, to 81°, which occurred in January. So dry is the atmosphere, he observes, "that twenty carcasses do not create more disgust than a single one in the United States." He adds:

"Any dead animal thrown into a place where the sun or winds can reach it, in a very short time becomes deprived of its juices, and has its skin and flesh made as dry as parchment. During the prevalence of the north and northwesterly winds the greatest drought occurs, and they are said to have blown much in 1831, '32, and '33, when no rain fell at Buenos Ayres; the pampas back of that city were stripped of vegetation, the soil was converted into dust, the sun totally obscured by clouds of it floating over the city, and deceiving the people with expectations of rain."

"The north wind at Buenos Ayres is well known to cause a peculiar headache, attended with excitement of the brain, and a disposition to rage and combat. An observance of this fact, I understand from high authority, caused Governor Rosas never to engage in fight with the Indians of the pampas while this wind blew, for he had found them always more ungovernable then, than when it was southerly."

Some other extracts we should like to make, but find that we have already taken up as much room as can be given to this work. Upon the whole, we have no hesitation in saying that we have found it entertaining. The author attempts nothing in the way of fine writing, but tells his incidents, and makes his comments in simple language. If this is sometimes incorrect, it is at all events unambitious, and it may be added, that the diary of a surgeon on board a man-of-war is not the place where we should look for finished composition. Y.

ART. IV.—*Elements of Materia Medica and Therapeutics.* By JOHN P. HARRISON, M.D., Professor of Materia Medica and Therapeutics in the Medical College of Ohio. Vol. I. Cincinnati: Desilver & Burr. 1845. 8vo. pp. 405.

The author of this work expresses, in his preface, a hope that it will be found useful in the following particulars: "1st, by an ample elucidation of topics connected with Therapeutics—such, for example, as Indications of Cure, and other kindred points. 2d, in an abridgment of the cumbrous catalogue of medicines, by the expurgation of many inferior and effete articles. And 3d, by a particular explication of the medicinal powers of our most effective means of cure." He therefore comes before the profession as a reformer. He has a hypothesis to defend, and a new arrangement of the *materia medica* to propose. The paramount object of his work, he says, is utility.

It is our intention to look somewhat critically into the

claims of this work, and to determine, if we can, how far the object of its author has been attained. This will require an examination of its doctrines, its practical teachings, and its style. If these prove to be good, there will be no longer any question as to the influence which the work is calculated to exert upon the profession, and we shall take pleasure in bearing our humble testimony to its merits. If, on the contrary, any substantial ground of objection be shown either to the style in which the work is written, or to the scope of its doctrines, this must be held to abate, so far, its claims to the favor of the profession. We are ready to welcome every valuable accession to medical literature, and all the more cordially if its auther chance to be a western man, and a neighbor, for we will not deny that we have our sectional partialities; but there can be no apology, at this day, for putting forth a work of inferior merit on Materia Medica. The numerous excellent treatises on this branch of medicine, which have been published within a few years, must be admitted to preclude any new system not coming highly recommended by its matter, its arrangement, or the style and manner of its execution. How far the work before us can lay claim to such recommendation, it is our purpose now very candidly to inquire.

At the threshold, the author gives his readers to understand that he has endeavored to place the question of the *modus operandi* of medicines on a footing 'exclusively vital'—assuming an 'apparently hostile attitude towards the very popular doctrines of humoralism.' These doctrines, he admits, 'are venerable from their antiquity, and respectable from their universality.' He adds, that 'coming down from the Coan sage, they have, with hereditary authority, been received by the profession as the most, if not only correct, explication of the mysteries connected with the agency of foreign bodies upon the system.' His inference on this point is, that—

"If true, the humoral doctrine, so universally acceptable to the people, and of such ready capability of easy application, should unhesitatingly be adopted, and transferred to the bedside. If medicines act by their introduction into the blood,

then we may, and should, make a quick appeal to such a truth, not merely to help us out of our *theoretical perplexities*, but it should be made available to our methodus medendi.

"Happy would it be for mankind, and most auspicious would its bearings be on the art of healing, could we make the doctrines of the humoral pathology our 'guide, philosopher and friend.' By opening a vein and pouring in our medication upon the blood, disease would soon be rebuked. By ascertaining the morbid matters in the blood, and directly neutralizing them by injections into the current of the circulation, a direct attack would be made on the very *germinal elements* of the disease, and thus a rapid destruction of it ensue."

Still, our author does not deny that medicines find their way into the circulation. On the contrary, he allows that they 'do enter the blood, and are to be detected in the secretions.' This would appear to be a frank and unreserved surrender of the question, but not so meant the author to have it understood, for in another place we find him employing the following language:

"If medicines pass into the circulation they become endowed, like all digested substances, with the attribute of assimilation, and are no longer foreign bodies, but integral parts of the circulating fluid. As integral parts of the circulating mass, they are no longer under the laws which determined their mode of action on the body when out of the blood, but in common with the other heterogeneous constituents of that compound fluid, can exercise no controlling interference on the functions of life."

So again:

"In virtue of the power of digestion and assimilation, foreign substances are obliged to undergo a special process before they are admitted into the blood.

"In consequence of this great law of vitality, no substances alien and hurtful to the system are allowed to penetrate, and diffuse their noxious power, beyond the organs whose duty it is to watch over and guard the organism from the introduction of unassimilated materials into the circulation."

And again:

"When madder colors the bones, or nitrate of silver the skin, or rhubarb tinctures the urine, these substances having

been assimilated to the organic tissues by passing into the blood, no longer are to be regarded as medicinal agents, but as constituents of the blood."

Finally, the conclusion at which he arrives is, that while medicines, in a certain modified form, may reach the circulation, they, nevertheless, 'do not *operate on the blood*, nor do they act on the organism by direct transmission through the circulation.'

The several propositions stated in these quotations are, that no foreign matter enters the circulation; that medicines are assimilated by the digestive process before they can be absorbed, and become then 'constituents of the blood;' that the blood is not affected by medicinal agents; and that these agents never impress the system through the circulation. Unfortunately, they are all unsustained by proof. From beginning to end, they are assertions merely, and the effect of their perusal in every instance, we suspect, will be not only a smile of incredulity, but an expression of surprise, that a very sensible author should set himself gravely about the defence of a dogma so utterly exploded. The propositions are not only without proof, as we have said, but are in the face of all the evidence bearing on the subject. We need not stop to cite the evidence—it is to be found in every book relating to the question, and must be familiar to every student who has read through his first treatise on Materia Medica. He need not have gone further to be supplied with arguments sufficient to overthrow every one of these positions. To us it is strange, that any mind should cling with such tenacity to a doctrine, to which all experience and observation stand opposed. If anything in medical science is settled, it is the fact, that various foreign bodies, medicinal and poisonous, do find their way into the circulation, and, being there, do affect the living economy. *How* they affect it—by what mode of action—is another question, and one not so easily answered. Our author, in reference to this question, uses the following language, which we quote, partly because it is characteris-

tic, but also partly because it indicates an error into which he has himself fallen. He says:

"The restless and eager spirit of speculation, unsatisfied with a careful generalization of the facts treasured up by a minute scrutiny of the modus operandi of a medicine, desires to penetrate beyond the sensible phenomena, and to unveil the secret workings of nature in the case. We wish not to discourage this original tendency of the human mind for abstruse enquiry into the causes of things; but in all philosophical pursuits it is absolutely essential that we possess some restraining power over this restless desire to penetrate the mysteries of nature, lest it degenerate into a wayward mood of mind, which, spurning the sober bounds of rational investigation, sports with the gay creations of fancy as substantial and demonstrable realities."

Not content with the simple fact, that medicines are found in the secretions and in the blood—that when that fluid has degenerated from its natural state, and has become deficient in red globules, iron restores it to a healthy condition—he has 'spurned the sober bounds of rational investigation, and sports with the gay creations of fancy'—the fancy, that iodine, oxalic acid, chlorine, nitrate of silver, and arsenic, when they are taken into the system cease to be foreign matters, and become '*constituents of the blood!*' It is, indeed, pure fancy. No fact or analogy in nature lends countenance to it. Not only are the substances not assimilated, but they continue to exert their peculiar influence after they have gained admission into the circulation. Whether they do this by their action upon the brain or other vital organs, or by affecting the nerves of the veins in which they circulate, or by some other explicable or inexplicable mode, is a question upon which the minds of physiologists are still unsettled. This may be one of those 'secret workings of nature,' which it is not permitted us ever to 'unveil.' But let us not deny what our senses teach us, because we cannot comprehend what goes on in the animal economy beyond the reach of our vision. Let us not deceive ourselves and others by terms which have no meaning, nor fancy that we have explained any process when

we have put it upon a footing '*exclusively vital.*' Above all, let us be cautious, in works intended for beginners, as in all cases where we are liable to lead others astray, not to assume that as science which has no foundation but conjecture, and which all our knowledge contradicts.

This labored effort of our author to revive an obselete idea, must be regarded by his readers, with now and then a rare exception, as a waste of time, and a sad misapplication of ingenuity. It occupies more than thirty pages of the volume, and makes one of the least gracious introductions to it that could well be imagined. In future editions we shall be glad on the author's own account, not less than for the sake of true science, if we shall find that it has been suppressed. 'Speculative views on the modus operandi of remedies,' he says, in his own peculiar way, 'are apt to *merge* into the *illimitable*, and become too refined and attenuated for practical purposes;' and most surely is the remark true of his speculations, on which account we are not sorry to take leave of them, and proceed to other portions of the work where we shall find more to approve.

The classification of remedies has always been a troublesome point with writers on Materia Medica. Under the four heads of '*evacuants*, *excitants*, *secretants*, and *narcotics*,' Professor Harrison thinks all remedial agents might be arranged. But he prefers, to quote his own words, 'a collocation rather more extended, and which more completely quadrates with our six governing therapeutical indications.' Consequently, to the list just given, he adds two other classes—'*alterants* and *derivatives*, or revulsives.' We agree with him, that 'simplicity is a very desirable characteristic in all scientific matters,' and shall not find fault with his classification on that ground. No doubt it will be criticised, for nearly every writer has his favorite arrangement. We have none, and that of Professor H. strikes us as combining as many advantages as most of the others.

On another point we have more difficulty. Our author says:

"The hand of judicious reform should expurgate the cumbrous list found in our works on Materia Medica."

Then, referring to the multitude of medicinal agents enumerated by Pereira, Dunglison, Eberle, Thompson, and others, he goes on in the following strain, which will be likely to recall to the reader's mind the remarks of the author about the desirableness of 'simplicity in scientific matters:'

"Is it not very apparent that such redundancy is both unscientific and injurious? Derogating from that simplicity and directness which should ever characterize all our researches into the sanative efficiency of the articles employed in the practice of medicine, and by its encumbering weight impeding the march of enlightened therapeutics."

All this may be very true; but what hand is to be trusted with the pruning-knife? Who is to decide how far the work of reform shall be carried, what articles shall be lopped off, and what left? A favorite medicine of one author might be thrown out as inert by another. Professor H. would proscribe one agent as useless, and, in turn, might find a valued remedy consigned by Thompson or Dunglison 'to the tomb of all the Capulets.' We cannot foresee where this would end, and, therefore, while we agree that in elementary works it may be profitable to abridge the list of medicinal substances, we incline to the retention of the entire list in the larger systems.

We have said that we are not inclined to make objections to the classification of our author, but, at the same time, we are not prepared to unite with him in his condemnation of other systems; as thus—

"What a sad *dereliction* from that precise and perspicuous collocation, or distribution, which should obtain, is exhibited in those tables of classification, where remedies are arranged under the respective heads of vital agents, chemical agents, and mechanical agents."

Or as in the following sentence, referring to the same:

"All this appears to our mind very much like the old scholastic subtlety—a curious piece of mosaic refinement, entirely at variance with that *axiom already announced*, that all medicines act upon the powers of life, and not in virtue of any chemical law."

The *axiom* already announced? An axiom is an established principle in science or art—a self-evident truth. And is it indeed so fully settled, that no medicines act 'in virtue of any chemical law?' Is it an established principle, that antacids and anti-lithics have no such action? Is it perfectly clear at first sight—so evident that no process of reasoning can make it plainer—that iron in cases of anæmia has nothing chemical in its action, that the influence of anthelmintics is purely vital, and that baths, pustulants, and cauterizing agents involve no chemistry in their operation? If so, it is strange that writers on this subject have not been able to see it, or, to speak more correctly, have so universally continued to deny it. That is a queer sort of an '*axiom*,' it must be confessed, which nearly every body agrees in rejecting.

The chapter on "*the circumstances which modify our therapeutical indications*," contains many just remarks, and evinces study and observation. We do not, however, perceive any particular force in the objections of the author to the theory of specifics, upon which, he says, 'the older writers dwell with fond and pertinacious speculation.' No one, we presume, believes in this 'supposititious *specifica qualitativa* of medicinal agents,' to give his own words again, a remedy which, under all circumstances, 'will so act on the pathological entity, or germinal matter of the disease' as to restore health. In this sense there is no specific in medicine, nor in anything else. Our remedies, all things being the same, always produce the same effect; and that is as much as can be affirmed of the operation of any agent in chemistry or physics. Quinine, mercury, and vaccinia are as truly entitled to the term specific, as are alcohol and nitric acid. Quinine

generally arrests chills; mercury cures syphilis; and vaccination prevents small-pox. It would, no doubt, be correct to say that they will always do so under the same circumstances. But they occasionally fail to produce these effects. And the same may be said of alcohol and nitric acid. Alcohol, among many remarkable properties, has the effect of hardening the brain, and for that purpose is employed by the anatomist; but now and then it fails. When the brain has suffered what is called, technically, *ramollissement*, it is found that alcohol does not harden it. So of nitric acid: under favorable circumstances—always, when there is nothing to oppose the union—it may be made to unite with soda and form a salt. But, here as in the other cases, to insure the result we must have certain conditions. If the soda be combined with sulphuric acid, nitric acid will not combine with it. We repeat, therefore, that the argument of our author against specifics does not appear to us to possess any special validity. The only difference that we can see between him and others is as to the meaning of the term. As he defines it, there is no specific; but as commonly understood, most medicines may be said to have something specific in their action.

Since, then, we are unable to perceive any marked peculiarity in the views of our author on this point, we are not prepared to concede to him the superiority of position, which he seems to claim in the following remarkable sentence:

"In the fulfilment of our six indications of treatment, already discussed, we can, in pursuance of a just scientific methodus medendi, prosecute plans of therapeutic procedure, susceptible of those variations required by the endless mutabilities of disease, whilst at the same time we decline reliance upon dubious and intangible speculations to guide our course."

As we have quoted one sentence, the peculiarities of which can hardly fail to strike the reader, we are tempted to quote a few others, of kindred character, which we find in the discussion of a subject closely allied to the last. The author is

treating of the *indications of cure*, when he breaks out in the following strain:

"Then why, with fond and *illusive earnestness*, *speculate* about the *suppositious*, *inherent*, *independent vital endowment of the blood?* Why, with a *fervid fancy*, *heat our minds in the chase of a nonentity?*

"How far can the humoral pathology assist us, in the detection of the true indications of cure in disease. Does this antique, venerable and much venerated system of pathology, throw no light on the true therapeutical indications by which scientific medicine is to be governed at the bed-side? Here is the field on which this time-hallowed and hoary-headed theory, or rather hypothesis, should achieve its most signal triumphs. But alas for its advocates! It deserts them at the bed-side; and at the very moment when its illustrations and enforcement are most anxiously anticipated, like the fabled hero of the Æneid, it escapes in a cloud from the scene of action, and leaves its votary to seek for other aids and better lights to guide him."

We would simply remark, concerning the doctrine of these passages, that there is a wide difference of opinion between Professor Harrison and Professor Andral on this subject, and that the weight of testimony compels us to take sides against our countryman. Prof. H. asserts that—

"There is not a single indication of cure, that we can build on these supposed morbid states of the blood."

Professor Andral, on the other hand, insists that much may be inferred from the appearances of the blood in disease, and adduces so much evidence in favor of that opinion, as was shown in a former number, that most readers, we suspect, will be strongly disposed to give it some credit.

Occasionally, our author manifests a disposition to take leave of these 'dubious and intangible speculations,' which, he owns, 'are apt to merge into the illimitable,' and to confine himself to the more obvious effects of medicines, as having 'stronger claims on our attention than the more fascinating employment of indulging in theoretical explanations of the occult modes

of their action.' But he does not continue long in this vein. The strong propensity returns, and hardly has he confessed the fruitlessness of such inquiries, before we find him busy again 'explaining the inexplicable.' The ultimate action of remedies, at one moment, appears to him 'occult'—concealed by an impenetrable veil; but the next he is ready to pronounce positively upon its character, as if he had been admitted behind the curtains and understood all:

"Medicines operate in virtue of a dynamic, and not from any chemical or mechanical mode of action."

And so, again, of the manner in which certain agents operate upon the blood, and restore it to a healthy condition:

"If the blood is thus purified," (by diet and mercurials) "it is *consecutive* upon a prior *rectification* of *disordered function* in the *life of nutrition.*"

The following are much in the same style, and if they fail to convey any clear idea to the mind, it cannot be attributed to any lack of words:

"Primordially, the action of an alterant is upon the vital properties of the system, in virtue of the relation which exists between the state of those vital properties, and the article administered."

"From deductions, drawn from a wide field of experience in the profession, we are warranted in referring the *peculiar* power of alterant medicines to a *special medication* which they *create.*"

"Incidental, or consequential, to the power possessed by alterants in so modifying the morbid conditions of the organs, as to subvert anormal processes going on in them, there are various evidences of a more energetic and harmonious movement established in the vital endowment of the organic structures. These evidences of a renewal of the healthy state of the parts originally diseased, or of the sympathizing portions of the frame, should be placed among the collateral and resulting phenomena, which accompany, or spring from, the primary alterant action."

The author gives sound advice to young physicians in his chapter on *the theory and art of prescribing*. In the West, especially, he is persuaded, we are prone to attempt too much by our 'heroic remedies,' and in that view, 'most importunately does he solicit the young physician to beware of an intemperate and reckless earnestness in the prosecution of his schemes of cure.' He continues, in his own peculiar way:

"Polypharmacy is bad enough; so is imprecision in the giving of medicines; but a too zealous and eager spirit of dosing, of multiplying dose upon dose, even when done with a precise, accurate, and clear view of the diagnosis, *may inflict more irreparable amount of mischief* upon the *patient's welfare*, than can be compensated for by the *adroitness* and *fine tactics* by which formulæ may be constructed."

On this point, and on all practical subjects, the views of our author strike us as, in the main, sound and judicious, and our impression of the volume before us is, that it gives advice which the young practitioner may safely follow at the bedside. However the mind of the author may be warped by certain theoretical notions, when he comes to speak of the application of remedies to disease, he seems to be free from unwise prepossessions, and ready to adopt whatever experience may have sanctioned in all the systems. The practice he recommends is what would be styled energetic, or bold, rather than expectant. There are points in it to which we might object; but as a whole, we have no doubt, it will be approved by those who have had most experience in the management of our diseases.

After all, is not that the principal matter? The great aim of a book on Therapeutics, is the establishment of a safe and successful plan of practice, and that being attained, we may pass the speculative opinions of the author by, as of secondary importance. Still these have their consequence, and must be taken into account in the general estimate of the work. So, also, must be the style in which the matter is conveyed. The volume before us if tried by the first of these tests will

pass well; but if subjected to the latter, our conviction is, that an unfavorable sentence must be passed upon it.

Of the cardinal doctrine of the work, which pervades every portion of it, and appears to hold the mind of the author as by a sort of fascination, it is sufficient to say, that it is obsolete. No galvanizing process can ever excite it to more than a few mimic movements, which no one is in any danger of mistaking for those of life. It is in its grave, 'with forty mortal murders on its head,' and there, 'after life's fitful fever,' it should be allowed to rest.

We shall not attempt to characterize the style of our author. Wherever, in this article, we could do so, we have communicated his views in his own language, and have thus placed before the reader the materials for forming an opinion touching this point. Such specimens might be multiplied to almost any extent, for they are afforded by every page, and nearly every paragraph of the book. Nothing seems so much to the author's taste as what he would style *verba sesquipedalia.* Simplicity and brevity of expression he studiously shuns, as something beneath the dignity of a scholar. He delights in stringing together the longest words, and in piling epithet upon epithet, until his sentences might be said to *groan under them.* Thus in his lively description of the follies of Homœopathy he says:

"Proceeding according to his plan of exiguity, or attenuation, and impregnating each reduction with fresh medical virtues by his rubbing or shaking, one grain of physic will finally answer to dose every man, woman, and child on the face of the earth, all their lives, till, in the ordinary course of mortality, they are all carried to the grave."

It was not enough to say that it would dose them '*all their lives*,' but he must add—'*till*, in the ordinary course of mortality, *they are all carried to the grave.*' Instead of vital, he has the action of medicines to be 'dynamic;' and for a table of doses, he has a 'posological table.' His sedentary persons 'bear with less tolerance,' and his pupils are to engage in

'clinical perquisition,' and be on their guard against 'speculative plausibilities' which 'merge into the illimitable.'

Such sentences as the following are not unfair specimens of the manner in which the author delights to impart instruction:

"Modification of action is induced by medicinal combination, in the creation of a new therapeutic result."

"Can we imagine that this infinitesimal dose will operate any change on each molecule of the blood; or that the visions of homœopathic power will be realized in each texture of the body?"

"Calomel given alone is a remedy of great capability of remedial power, but the chief curative results which arise upon the exhibition of this effective weapon of medical aggression, are seen subsequent to a combination of the article with antimony, or opium, or a union of all three."

"Where ætal and scrofulous predispositions are conjoined with this engrafted, or superadded disturbance of the chylopoietic viscera, there is frequently engendered incurable lesions of secretion, or structure, in the encephalon or thorax."

'Organs giving egress to the peculiar fluids of their secretory elimination,' 'emunctorial outlets,' 'the parturient uterus stimulated to intense expulsive contractions,' 'transmitted pravity of constitution,' 'beyond the warrantable bounds of a sound induction,' 'cutaneous phlogosis,' 'a better hæmatosis, 'modifications imparted to the molecular movements of the blood in the terminal branches of the vascular system:'—these and numberless similar expressions occur continually in the work. We suppose that in quoting them, after the numerous extracts already given, we afford the reader the fairest means of judging of the merits of its style. They will probably start in his mind, as, we confess, they often suggested to ours, the question, whether 'the hand of judicious reform' would not come in well here, to 'expurgate the cumbrous list.' We must say, that of the two—redundancy of things, though they be obscure medicines, and redundancy of words, though

of most 'learned length and thundering sound,'—we should be obliged to declare for the former. We are not able to perceive how the pupil is to gain by exchanging matter for phrases—by giving up remedial agents and getting sound in their stead. If the list of remedies is to be retrenched, he is not unreasonable in asking that the language in which they are described be also confined within reasonable bounds. Poverty of matter and exuberance of style might reasonably be expected to provoke his complaints. Y.

ART. V.—*An Essay on Curvatures and Diseases of the Spine, including all the forms of Spinal Distortion:* to which the Fothergillian gold medal was awarded by the Medical Society of London. By R. W. BAMPFIELD, Esq., one of the Surgeons to the Royal Metropolitan Infirmary for the Diseases of Children; Fellow of the Medical Society of London; Author of an Essay on Hemeralopia, or Night Blindness, of Practical Treatises on Tropical and Scorbutic Dysentery, &c. Edited by J. K. MITCHELL, M. D., Professor of the Practice of Medicine in Jefferson Medical College of Philadelphia, &c., &c. Philadelphia: Ed. Barrington & Geo. D. Haswell. 1845. 12mo. pp. 223.

This volume makes the number of the *Select Medical Library* for October, and forms a seasonable contribution to our medical literature. The profession in the west is much in need of a work devoted to this specialty. Diseases of the spine are of not infrequent occurrence amongst us, and as the habits of our people become more luxurious they are likely to increase. It is therefore a matter of great importance that physicians should have their attention directed to the subject, and should be familiar with the earliest indications of the disease, in order that they may be able to meet it at its commencement, when, alone, it is treated with any certainty of success. Much suffering, and much hopeless deformity might be prevented if parents and practitioners were suffi-

ciently on their guard against the first encroachments of these terrible maladies. "Whenever," is the just remark of the editor in his brief preface, "a child complains of unwonted lassitude, of tenderness in the back, or of constant pain in the side when seated, or drags its legs awkwardly, or begins to trip and fall in an inexplicable manner; or still more, when the dressmaker finds it difficult to obtain a 'neat fit,' or the shoulder-blade projects, or the line of the shoulders is inclined, we should examine well the spine, both as to sensibility and shape."

Excurvation of the spine is the disease first spoken of, and is considered by Mr. Bampfield the most frequent of all the distortions. Dr. Mitchell agrees that it is so in boys, who are seldom affected with any other form, but he maintains that the lateral curvature is much more frequent in girls. The treatment of it resolves itself into two classes — prevention and cure. The first consists in placing the patient in the recumbent posture, which is to be done at the earliest period.

"Generally speaking, in all cases of incipient curvature, the recumbent posture should be much adopted, with such a degree of exercise of the dorsal muscles as each particular case will admit of; but if inflammation be present, exercise may be injurious; if rheumatism exist, it cannot be employed, and if the remote cause be sprain, contusion, &c., the pain from attempting exercise will prevent its use."

"Some of the indications in the treatment of curvature of the spine are general, and will apply to its several varieties, whilst others will be particular, and peculiarly adapted to one variety only. The general indications applicable to all, are, to afford to the vertebral column effectual relief from pressure; to secure the bodies of the affected vertebræ from the irritation of motion in the erect attitude; to assist or enable the vertebral column to regain its true spinal line; to remove all constitutional and local symptoms of disease, and rectify all disordered functions, to promote the general health."

"The first indication will be fulfilled by relieving and protecting the spine from *all* superincumbent or other weight."

"The means adopted for the purpose of taking off all pressure from the spinal pyramid, have been to confine the body in the recumbent posture, either on an horizontal or an in-

clined plane; and it should be determined, on due consideration, if one of these contrivances be preferable to the other, or if either of them be objectionable."

"The second indication will be fulfilled by rest in the horizontal posture, and by abstaining from all movements and positions whilst so *lying*, which throw weight on the bodies of the vertebræ. This seems necessary, because movements of the body in the erect attitude would, sometimes, produce a degree of friction and motion of the diseased vertebræ that would be injurious; because they would tend to excite inflammation and absorption; and because analogy points it out, as absolute rest is enjoined in almost all diseases of other joints."

Incurvation of the spine is less frequent than the foregoing species. It is rarely attended, moreover, with the serious consequences that ensue from the other curvatures, and takes place generally, if not always, when the result of disease, in the cervical, lumbar, or lower dorsal vertebræ. The lumbar incurvation is generally removable at will; the cervical is permanent. The treatment, as in the preceding, consists mainly in directing the horizontal position. If the incurvation be of the cervical vertebræ, "the chin should be drawn in towards the neck; if of the loins, the flexion of the thighs tends to remove it." But this flexion cannot be constantly employed, because it would bring about permanent contraction in the flexor muscles of the thighs.

"Proper position will also contribute to the recovery, by taking off the superincumbent weight and pressure of the head, and by assisting in keeping the cervical vertebræ extended. For these purposes, the patient should have his head fixed in a socket let into the plane in which he lies, with his chin bent on the chest, and extension of the cervical vertebræ should be resorted to, immediately before the occiput is placed in the socket; the plane should also have a slight angle of inclination at first, that may be afterwards increased; for, the head being fixed, its weight does not press on the vertebræ, even when the patient lies on an inclined plane. Friction and shampooing should be employed. Leeches and blisters may be prescribed, if any pain or inflammation arise. Appropriate remedies should be adapted to the different constitutional disorders that may accompany incurvation, similar to what have

been recommended in excurvation. Tonics are, in general, indicated.

"In the cases of spinal curvature in which the dorsal horizontal position is adopted, the patient should lie on an unyielding mattress, for, if placed on a yielding medium, the column would curve backwards beyond its true spinal line. To this rule there are some exceptions."

"*Lateral Curvature.* — This disease almost universally occurs *during the growth of the body*, and is almost as common as excurvation. It rarely occurs in infancy or after the adult age."

"The remote causes of lateral curvature are rachitis, or disproportion of growth of the sides of the vertebræ; unequal length of the lower extremities; undue pressure on one side of the vertebral column from carrying heavy weights on one arm, by which the spine is bent to one side; an inclined position of the body to one side long continued; muscular debility; rheumatism of the intercostal and dorsal muscles; abscess on the side of the neck or trunk; scrofula; tumors."

"In the very early stages of this disease, when the curvature is directly lateral, and there is no pain or tortuosity of the spine, a cure may be attempted, without having recourse to the recumbent posture, by proper exercises of the dorsal muscles and those of the trunk; by wearing the spine machine or collar, with lateral and axillary supports, and the rods for supporting the head, as often as the patient uses the erect attitude, and by the remedies employed for the cure of rachitis. This instrument shall be worn in all cases, whenever the patient is obliged to assume the upright posture, and if a cure cannot be effected, this instrument, varied for particular purposes, must be worn. If instruments be injurious at all, they must be so in curvatures attended with rachitis, when the bones are soft and yielding. I, therefore, revert to the subject of the use of instruments. As all the spine instruments embrace and rest upon the pelvis, as their basis of support, they have been objected to by many eminent surgeons, whilst their employment has been defended by others, and great authorities may be quoted on both sids of the question.* The bad effects are attributed to a weight or burthen being thrown on parts never intended or calculated to bear them, by which the

* No such objection applies to the spine-car of the editor, and the spine-chairs of Darwin, Shaw, and Kissam, as they do not throw the weight on the pelvis.—*Editor.*

pelvis is irreparably distorted, and females suffer, during parturition, from pelvic deformity, preventing or retarding the passage of the fœtus."

"*Angular Projection of the Spine.*—This species almost always invades the lower portion of the spinal column, and the principal seat of the malady and projection is in the lumbar vertebræ, the spinous process of the third or fourth of which generally forms the prominent angular point. I have, however, seen this form in the centre of the dorsal vertebræ. The reason why this distortion assumes the angular, instead of the curved figure, seems to be, because the lumbar vertebræ below are naturally incapable of so much flexion or of being bowed out so much as the upper vertebræ, or they offer an effectual resistance to it, from being so near a fixed point as the sacrum; hence, the vertebræ below the one disordered or deranged nearly retain their spinal line, whilst those above are removed from it.

"Since my attention has been particularly directed to this species of spinal distortion, it has occurred in my practice as frequently as excurvations or lateral curvatures.

"This distortion generally occurs in young persons from three years of age to twelve; but adults are sometimes obnoxious to it."

"*Causes of Angular Projection.*—The remote causes of this species of spinal distortion are contusions of the spine; sprains of the lumbar vertebral joints; muscular debility; pressure of the cyst of lumbar abscess; a rickety growth or malformation of the bony bridge; and, more frequently than any other, scrofulous or common inflammation of the intervertebral cartilage, and horizontal surfaces of the vertebral bodies.

"The immediate causes, being the same as of other spinal distortions, must be sought for in a structural disproportion between the anterior and posterior portions of the vertebræ or intervertebral cartilages, or in the destruction of the horizontal surfaces of one or more vertebræ, and the intervertebral cartilages situated between them."

"*Treatment.*—Many of the indications of cure enumerated for the treatment of excurvation of the spine, are, with equal propriety, applicable to the angular projection, and the mode of treatment they inculcate will be found as serviceable."

"Reposing in the facial horizontal position on a soft feather bed, will be found particularly advantageous in this variety, for, as in all the cases I have seen, except one, which involved the central dorsal vertebræ, the most projecting spinous processes were those of the lumbar or lowest dorsal vertebræ,

which consequently form the seat of distortion or disease; and as, in this position, this part of the spine gravitates and inclines inwards more than in any other, so as to form even in health an artificial incurvation, by which the anterior portions of the spine are separated and the posterior more closely applied, it is easy to infer, that all weight and pressure are taken off the anterior portions of the column, by which the progressive absorption is suspended and further prevented, and that some weight of the column, by the incurvation, is transferred to the posterior portion, where it occasions such a degree of pressure, as may arrest the disproportionate growth of bone, or if not, it may conduce to its accommodation, by the tendency of its pressure to promote absorption of the parts of the vertebra above and below it, by which space will be formed to accommodate the disproportioned and enlarged vertebra, and the balance of the spinal line preserved."

This work is eminently satisfactory on all the points upon which it treats. The reader who applies to it for information concerning maladies of the spine will not be disappointed. In a small compass it embraces a large amount of practical information of which the physician must often experience the need. The republication of it in its present cheap form has placed it within the reach of every one. Dr. Mitchell's additions to it are not numerous, but in every case his notes contain valuable facts or suggestions. Y.

ART. VI.—*A Synopsis of the Symptoms, Diagnosis, and Treatment of the more common and important Diseases of the Skin.* With sixty colored figures. By N. WORCESTER, M.D., Professor of Physical Diagnosis and Pathology in the Medical School of Cleveland, late Professor in the Medical College of Ohio. Philadelphia: Thomas Cowperthwait & Co. Boston, Charles C. Little and James Brown. Cincinnati, Desilver & Burr. 1845. pp. 292. 8vo.

We must agree with Dr. Worcester that a compendium of the kind here presented to us has long been needed. We are disposed also to admit the truth of what he says concerning the little attention that cutaneous diseases have received at the hands of the general practitioner. They seem to have been shunned both by physician and surgeon, and to have

been delivered over, by general consent, to quacks, and to old women, whether in petticoats or cut-a-way coats. These last have found their peculiar home in this department. Here they have revelled, rioted, luxuriated; here they have reaped their greatest harvest. Hence the legion of popular nostrums whose virtues we hear vaunted, from *Judkin's Patent Specific* up to that of — we forget the name—with Duff Green's recommendation. Every old granny, whether male or female, has her "nice sa've," her "'intment," not forgetting the "persipity," white and red; and her *teas* from "sassyfrac," or "pennyr'yal," down to "sheep-saffron," to purify the blood. We have not the difficulty our author has in accounting for this. None deny the importance of these diseases, their frequent occurrence, and the facility of examining them. It may be, too, that they are susceptible of a "simple, beautiful, and perfect classification;" but, nevertheless, it is the absence of this, we apprehend, that constitutes one of the causes of their neglect. Students have stopped, appalled by the inextricable confusion of tongues that greeted them at the threshold, and perplexed by the multiplied and excessive refinements that met them at the outset. The desire of presenting something new, has been attended with as unfortunate results here as elsewhere. Authors seem to have puzzled their brains, and certainly they have perplexed those of others, in their hair-splitting distinctions and divisions. Alibert's tree is but a type of them. One of the latest works on the subject makes no less than nine varieties of erysipelas! Names are so accumulated, so piled and heaped on each other, so *imbricate*, to use a botanical phrase, as to form a covering as impenetrable as the bull's-hide shield of the Roman soldier, or the seven-fold one of Ajax. Is it any wonder that these diseases have been neglected? that a physician in laborious practice has turned from them almost in disgust? Another reason, perhaps, for this neglect, is the expensive nature of most of the special treatises—they are not within the reach of the general practitioner. And a third reason is the inadequacy of mere description, however accurate, to fix their characters in the mind, and the difficulties of seeing examples in a sparse country practice.

Dr. Worcester does not pretend to any originality in his synopsis, but candidly tells us that he has drawn his materials from every source that he found available. In the classification of cutaneous diseases he has followed Willan, not because the system of the latter is without strong objections, but because, notwithstanding its defects, it is the "most simple," and "affords greater facilities for detecting and classifying a disease." Willan's arrangement seems to bear about the same relation to that of other authors that Linnæus's artificial system of botany does to that of more recent writers on the same subject—less scientific, or philosophical, but absolutely indispensable to the student or young beginner. It has been called, in fact, a work on natural history rather than pathology. The new orders that have been added to the system by more recent writers, consisting, for the most part, of a single disease, and this of rare occurrence, have been omitted by our author, as not coming within the scope of a work designed as a manual of the more common diseases only. He has also omitted the eruptive fevers, as a minute account of them is contained in most of the treatises on medicine. To facilitate diagnosis, Dr. W. divides the orders into two groups, the *moist* and the *dry*. In the first group we have three orders, in the second five. Thus:

First Group.

- Vesiculæ.
  - Eczema.
  - Herpes.
  - Scabies.
  - Miliaria.
- Bullæ.
  - Pemphigus.
  - Rupia.
- Pustulæ.
  - Ecthyma.
  - Impetigo.
  - Acne.
  - Mentagra.

Second Group.

- Exanthemata.
  - Erythema.
  - Roseola.
  - Urticaria.
- Papulæ.
  - Lichen.
  - Prurigo.
- Squamæ.
  - Lepra.
  - Psoriasis.
  - Pityriasis.
  - Ichthyosis.
- Tuberculæ.
  - Elephantiasis.
  - Molluscum.
  - Frambesia.
- Maculæ.
  - Ephelis.
  - Nævi.
  - Albinismus.
  - Vitiligo.

He gives the following simple rules in making a diagnosis:

"1st. Ascertain whether the eruption was originally dry or moist

"2d. Examine with great care the eruption, and in a great majority of cases some examples of the elementary form of the eruption, as the papule, vesicle, or pustule, may be found either in the neighborhood of the part principally affected, or in some more recent eruptions. Almost all cutaneous diseases are successive in their appearance, which is often of great assistance in the diagnosis.

"3d. Where you cannot satisfy yourself by a careful examination, as to the elementary form of the eruption, after having ascertained the group to which it belongs, try to learn from the patient or friends the appearance of the disease at first, as whether the vesicles were from the very first filled with a clear, limpid, or with an opake and yellow fluid; whether the pimples were at first distinct, small, hard, and conical, or were flattened, soft, conglomerated, &c. &c.

"In most cases by observing these three general rules, not only the group, but the order to which the disease in question belongs, can be ascertained; beyond this the differential diagnosis of the different diseases belonging to the same order, is commonly not difficult and often of no great practical importance."

The prognosis is not unfavorable if these diseases are treated in the early stage. It is only when they are allowed to continue until the delicate structure in which they are seated is disorganized, that they become inveterate.

In relation to the causes of cutaneous affections, our author presents nothing new. Some are hereditary, some contagious, some are excited or kept up by certain articles of food, but in many instances no satisfactory cause can be ascertained. Dr. W. thinks the most prolific source in this country is want of cleanliness; the same cause was assigned by Willan for their frequency in England.

On the subject of treatment Dr. W. insists that if the true pathology is kept steadily in view, and remedies are applied according to the character and stage of the disease, the result will be as satisfactory as in the diseases of other organs.

"The great reason that the treatment of cutaneous diseases has generally been attended with so little success, is that we prescribe for them too empirically, and do not pay sufficient attention either to the pathology or to the stage of the eruption. The same general principles should govern us here, as in the treatment of all other diseases; a great proportion of cutaneous eruptions are at first inflammatory; in this stage, common sense would direct general depletion by blood-letting and cathartics, and local soothing applications, as cataplasms, water-dressings, &c., to allay the local excitement; in short, a strict, antiphlogistic course, both in medicine and regimen, should be directed. When the acute stage has passed by, the course should then be changed, and in some cases the treatment can now be beneficially reversed, and tonics or even stimulants, both general and local, be substituted for depletion."

Many of these affections are maintained by improper treatment long after they would otherwise have ceased. The practitioner should also bear in mind the vicarious office of some of them both in the adult and the child; and should be cautious how he interferes with them before attending to the general health. Cleanliness is of vast importance, especially in diseases belonging to our author's first group; nothing else being requisite for the cure of many of them. Attention to diet is also of great importance. Scanty and innutritious food is known to excite cutaneous diseases; hence among the poor and destitute of large cities, a generous diet is about all that is required. "A mild, unstimulating, abstemious diet in the acute stage, followed by a more generous allowance, as the activity of the symptoms abate, is found to be the general rule in the treatment of all these diseases." Certain articles of food have, from time immemorial, been set down among the exciting causes of cutaneous eruptions. The Jewish prejudice to pork seems to be well founded. Salted meats, articles of a fatty or oily nature, heating condiments and spices, and alcoholic drinks, are to be avoided.

Among the general remedies, the lancet and purgatives are peculiarly useful in the active stage of most eruptions; next to these come tonics, especially the bitter infusions and min-

eral acids. Advantage is frequently found in giving the saline cathartics in bitter infusion, or with a few drops of one of the mineral acids. The great remedy at the present day is arsenic, in the form of Fowler's or Pearson's solution, the Asiatic pill, or combined with iodine and mercury as in the triple compound recently introduced under the name of Donovan's solution. Cantharides in the form of tincture, and corrosive sublimate, are valuable in the same cases and stages as arsenic, with which they are frequently alternated. Sulphur in substance, or combined, as in some of the mineral waters, is another remedy of considerable efficacy. The dose should not be large, and it should never act as a cathartic. Two new remedies have lately been introduced, the anthrakokali and fuligokali. Our author gives the formulæ for their preparation, but does not seem to place much confidence in them. Of local remedies, leeching and sedatives are most important in the active stage of eruptions; in the chronic stages, stimulating applications are required. Among the soothing remedies, the author, as might be inferred from what we have already stated, places foremost some variety of the general or local warm bath. Of the stimulating applications, none are so generally useful as some of the sulphur baths. They are a favorite remedy with Alibert, and at the Hospital of St. Louis, in Paris. They are found most useful in the same cases as arsenic, that is to say, where the eruption has become squamous.

Such, in a general way, are the principles which, according to our author, should guide the practitioner in the treatment of cutaneous affections, and such are some of the means of treatment. We cannot, of course, follow him in his description of the various orders and genera of diseases. These descriptions are concise, but accurate; while, under the several heads of *diagnosis*, *prognosis*, *causes*, *and treatment*, will be found all that, in the present state of the science, is known of each particular disease.

The mechanical execution of the work must not pass unnoticed. Judgment and taste have been evinced in selecting a

large, clear type, with a page not too much crowded—two things which, in our opinion, are no mean recommendation. Among the colored figures, which are absolutely indispensable in a work of this kind, will be found an illustration of nearly every disease mentioned in the text. These are executed in a style creditable to Western art, and are, so far as we can determine, faithful to nature.

In regard to the literary merits of the volume, we might, with good reason, take the author severely to task on account of numerous ill-constructed sentences, and a frequent looseness and carelessness of phraseology. But he is young as an author, and we are disposed to let these pass without comment. We are not sure, however, that the publishers do not deserve a rap over the knuckles for the many, and, in some cases, monstrous errors of the press. These are so many blemishes on the work, which might have been and should have been guarded against. C.

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Report of the Trial of Abner Rogers, Jr., indicted for the murder of Charles Lincoln, Jr., late Warden of the Massachusetts State Prison; before the Supreme Judicial Court of Massachusetts; holden at Boston, on Tuesday, January 30, 1844. By GEORGE TYLER BIGELOW, and GEORGE BEMIS, Esqs., Counsel for the defendant.

The case of Rogers, is one of much interest to the medical and legal profession, from its bearing on the subject of the medical jurisprudence of insanity; and it is hoped that the following synopsis of the facts may prove useful, by directing attention to this important subject.

Present—Chief Justice Shaw, Judge Wilde and Judge Dewey.

Samuel D. Parker, Esq., the Attorney General, produced and read the conviction and sentence of Abner Rogers, Jr., as a 'second comer,' in the State prison; by which it appeared that Rogers was convicted and sentenced in March, 1833, for having counterfeit money in his possession, with intent, &c., to two years hard labor in the State prison; and again in 1838, for burglary and theft, to five years imprisonment. As a 'second comer,' under these two sentences, was again sentenced at the Municipal Court for the city of Boston, at the March Term, 1843, to six months additional confinement in the State prison, which last sentence he was undergoing at the time of the homicide.

On Thursday, the 15th of June, in the afternoon, Mr. Lincoln, the warden, came into the shoe-shop of the prison, where Rogers was employed, in company with a stranger.

Immediately after his entrance, and while engaged in conversation with one of the prisoners, Rogers passed across the room, took a knife from another bench, with which he approached the warden, and inflicted three wounds in quick succession; one in the small of the back, one in the back under the shoulder-blade, and another in the neck.

Without uttering a word, the warden fell into the arms of a bystander, and expired.

By the testimony of Dr. William J. Walker, physician to the prison, who made post-mortem examination of the body, it appeared that the wound in the small of the back was slight; that the wounds under the shoulder-blade and in the neck, were very severe; the latter dividing the carotid artery, and injuring the windpipe.

The indictment charged the prisoner with the crime of murder, and the Attorney General stated, that in regard to the various particulars alleged, he was prepared with the testimony to establish his guilt; but as the act of killing, and the manner of its accomplishment, was admitted by prisoner's counsel, the testimony relating to these points is omitted in this account.

The Attorney General further stated to the jury, that the case depended upon their decision of the single question—

Was Abner Rogers, Jr., an accountable moral agent at the time of the homicide?

To establish this point, Dr. Walker was recalled, and stated that he had known the prisoner for a number of years, and that he saw him on the morning of the homicide, when he came to the hospital for examination.

All applicants for medical treatment come to the hospital, together, to see the physician. Rogers was among the number on the 15th of June. He walked steadily to his seat in a quiet manner. When his turn came, he passed the door of my room in the same quiet manner toward me. I asked him what was the matter? He threw himself into gesticulations at once, put his hand up to the side of his head, and said—'I am in great distress here, I am in pain all over, and feel as if I could not govern my mind.' I said to him, I understand this. If you will do your part toward meriting kind treatment, you will receive it; but if you do not, you cannot receive it. He became collected immediately, was attentive to my advice, and went quietly away. After seeing me, he was sent back to the shop. My prescription, as written in the book for him, was, 'keep at work.'

Between the 1st of February, 1843, and the day of the homicide, the prisoner had presented himself at the hospital as an applicant for medical treatment, twelve times; but on two occasions only, had he received any medicine. At one time liquorice was prescribed, and at the other, two bread pills. I am satisfied that he was of perfectly sound mind on the 15th of June, and that he came to deceive me.

Dr. Walker further stated, that he never had any conversation with the prisoner, except when he came to the hospital; that he did not feel his pulse, or examine his tongue on the morning of the 15th, and that he had not heard that he was insane, or pretended to be, prior to that time.

The defence claimed, that Rogers was insane and irresponsible at the time of the homicide; and therefore, should be excused from the the penalty of the crime of murder.

It was shown by the defence, that Rogers' general conduct had been as good as other prisoners, until within a few days of the homicide.

On Monday night, the 12th of June, he was noisy in his cell—repeated expressions of terror, as, 'I shall die! I shall die!!' &c. Tuesday, the 13th, appeared much agitated, and said that he was told by voices overhead, that the popo-game was to be played on him; that checkerberry was put in his food, and that he must hold his head down and sweat it off. On Wednesday, the 14th, he repeatedly spoke of voices informing him that he was to be shut up by the warden—of the popo-game the officers were playing on him; and appeared very anxious about the result. At night was very noisy in his cell, for which he was showered the next morning.

Thursday, the day of the homicide, Rogers seemed agitated and restless; did not keep at work regularly, but would stop, hold his head down, and appeared to be in a study.

An officer of the prison informed the warden that he believed Rogers to be insane; to which he replied that it would not do to admit it, for fear of the effect on the other prisoners.

In the afternoon he became still more excited, and repeatedly requested persons to see the warden and get him released from punishment. Although he was as often assured that no punishment was intended for him, yet it had little influence in quieting his fears, and he would immediately repeat the same request.

Between four and five o'clock in the afternoon, he went to the contractor of the shop, knelt down, and implored him to see the warden, and get him excused from punishment. At

that time, his voice trembled, his hands were clasped, and he appeared in great agony. He was told to return to his work, which he did.

In a few minutes after this, Mr. Lincoln came into the room, when the fatal blows were given.

By the testimony of Abner Rogers, Sr., and other relatives, it appears that the prisoner had fits in his infancy, that continued until he was 6 or 7 years old; that he had been subject to turns of wakefulness at night, when he would get up and walk his room for hours in a high state of alarm. He also had one brother who was imbecile, another one who had fits; and many distant relatives, who had either been insane, or extremely nervous.

On Friday, the day after the homicide, the Rev. Louis Dwight, Secretary of the Prison Discipline Society, called to see the family of the deceased warden, and also saw the prisoner, whose appearance he thought very singular, and indicative of mental disorder. He therefore called on Dr. Bell, and induced him to visit him in the prison. The state of the prisoner's mind is fully detailed by Dr. Bell, who saw him repeatedly, and from whose testimony, as well as that of Drs. Woodward and Ray, who attended the trial, copious extracts are given. The testimony of Mr. Dwight describes the same, or similar symptoms as that of Dr. Bell, and is therefore omitted.

It may be remarked, however, that much credit is due to him, for his sagacity in perceiving Rogers' mental state, and also, for his benevolent efforts in his behalf, before and during the trial.

Dr. Bell testified:—

I am Superintendent and Physician of the McLean Asylum, and have been such seven years and upwards. I went to see the prisoner, Rogers at the solicitation of the Rev. Mr. Dwight, on Saturday morning, the 17th, at an early hour. I had no previous knowledge of the defendant. After some delay at the prison, we were invited by the deputy warden and chaplain to go to his cell. The deputy warden unlocked the door, and we heard a momentary outcry, indicative of fear and affright. It seemed like that of a person just roused from sleep, and I satisfied myself that this was the case.—The conversation at first was between him and Mr. Curtis, the chaplan, about sending for his father. His manner during this, was calm, composed, and natural. Mr. Dwight, I think, then asked him why he killed Mr. Lincoln? Upon this subject, he began at once a strain of incoherent and wild re-

marks, showing plainly, that his was a case of real, or highly simulated, insanity. These he continued until I designedly turned the conversation to other subjects. His detail related to certain voices which he had heard at various times, and from several of his fellow-convicts; and which announced to him, that he was to be the object of the injurious treatment or influences of the warden. The warden had learned from Mr. Curtis, as I gathered it, a knowledge of the popo-game, which Mr. Curtis had himself brought from the Auburn prison, and this was to be practised upon *him*. The warden was also going to make another injurious attempt upon him, by putting checerkberry into his food. I asked him to explain what he meant by the popo-game. He replied, that they drove you round and round your cell; that he had stood it three nights, but that it would be impossible for him to hold out 24 hours longer.

I asked him what he meant by checkerberry? whether it was the common evergreen that grows in the woods? He said it wasn't *that*, but something that set your brain in a whirl in a moment. He said that these voices came to him, principally, from the top of his cell; some of them were in the language of reproach; as, 'damn you, they'll kill you!' others were commisserative; as, 'Rogers you have got to die,'—'you'll never get out of prison until you are carried out feet foremost.'

When the conversation was turned to other subjects, he conversed naturally in relation to them, showing no disposition to recur to these troubles. I counted his pulse twice at this interview, and found it over one hundred at each time. His tongue was slightly coated, his head cool, face shrunken, and no intolerance of light in the somewhat dark place where we were.

When we began on the popo-game and the injuries practised on him his manner was exceedingly rapid, repeating sometimes three or four times with great volubility and rapidity, such phrases as, 'tread up'—'tread up'—'damn you, they'll kill you;' this, spoken with a loud voice, and great intensity. This interview continued one hour and a quarter.

I saw him again the Tuesday following, the 20th. His general manner and appearance were about the same. But there was a very considerable difference in his manner of treating these imaginary communications. His conversation was at first natural and calm. When it turned on the subject of the game, he resumed his old rapidity, but every now and then, in a sentence like this, 'well, now; I suppose there

wasn't anything in all this,' or 'the devil had put these things into my imagination.' His pulse at this interview was about one hundred. On turning the conversation to other points, he talked freely, and with propriety, making no allusion to the subject of the voices, which was not again referred to, at this interview.

Friday of the same week, the 23d, I saw him again, and let him know who I was, and the object of my visits; that I came to ascertain the state of his mind. I told him this to see if he would affect any different symptoms, or exaggerate those he had already shown. His conversation was essentially the same as before: not introducing the subject of these voices himself, and explaining them as having been merely his own immaginations, or put into his head by the devil. I tried to induce him to treat them as realities, by speaking of them as such myself; but could not succeed. I would say to him, 'When you heard Cole say' thus and so. He would reply, 'I don't suppose there was any thing at all in that.' He once said that he still thought his life in danger. His pulse at this time was one hundred. Dr. Bell saw the prisoner twice after this, at which times he spoke of the voices only when questioned.

At the first interview I had with him, he gave an account of trying to sweat the checkerberry out of him by hanging his head over the bed; and of his distress in finding the blood rushing from his heart to his head. The first three interviews were from an hour and a quarter, to an hour and a half, each. The two last less protracted.

On Saturday, he said, if he had killed Mr. Lincoln, as it was said he had, it was because this popo-game had been played upon him.

I have attended the trial and heard all the evidence that has been given in the case. As to my opinion. At the time of commencing these investigations, and until I came into court, I knew nothing of the opinions of others. I had no impression on my mind at the time of going to the prison, but that the act was a wilful murder.

Judging from my observations alone, I have come to the conclusion, that the case is one of real, and not simulated, insanity. That the defendant was laboring under that species of insanity, which is accompanied with a belief of hearing false voices, or hallucination.

The great mass of evidence which I have since heard, supposing it to be true, corroborates my first opinion; and I have heard but few things inconsistent with it. My reasons for

my opinion are: that the form of insanity, with which this individual appeared to be afflicted, is one not generally recognized as insanity in the world at large, and would hardly be attempted by one competent to feign it, so likely would it be to fall short of its object—that of convincing people that a person is insane who only hears false voices.

Yet the form of insanity is one well known and understood, and not unfrequently met with, by those who have the care of the insane. The delineation of it by this man, if it were feigned, was consistent, and not mingled with any symptoms which do not belong to this type of disease.

The communication reached him solely through one of the senses—that of hearing; and he never pretended that any other was affected. I have never known this form of insanity simulated.

The probabilities of a lucid interval in this case, between the time of the occurrence of the facts testified to immediately preceding the homicide, and the homicidal act, are very small. I should consider that if an outbreak had occurred under the circumstances here stated, it would evidence an uncontrollable impulse to violence. It is a well-settled fact, that after a paroxysm of violence, the insane appear comparatively calm and tranquil.

Dr. Bell here stated a case, illlustrative of the last observation, and of the transitory character of the disease in some instances. A young man, who had been under his care, killed his father in a paroxysm of insanity, supposing he was the devil.

The young man for a short time previous to the act, had shown sowe slight symptoms of depression, or mental alienation, but nothing of an alarming character.

One day his father invited him to go out and work at making hay. While so engaged, as the father was stooping to go through a pair of bars, the son struck him over the head with repeated blows of a pitch-fork, and killed him.

No legal proceeding were had against him. But being brought to the hospital immediately after, (within a week,) he then appeared calm, recognized his delusion, and never showed signs of insanity afterwards.

Dr. Bell presented many other interesting illustrations and remarks which are here omitted.

[In answer to a question from the counsel for defendant]—I consider the present, as a case of positive and decided disease.

Samuel B. Woodward testified—

I am superintendent of the State Lunatic Hospital at Worcester, and have been so upwards of eleven years. Have been visiting physician and director of the Lunatic Retreat of Hartford for ten years; and six years was physician of the Connecticut State prison. In the course of my experience, I have had upwards of two thousand cases of insanity, more or less, under my charge, and have attended many others besides.

I have attended during this trial, and heard all, or nearly all the testimony.

Taking the facts testified to, to be true, I am of opinion that the prisoner was insane at the time of the homicide. I think his case would generally be considered one of monomania arising from hallucinations.

My reasons for this opinion are: that, in the first place, the form of the insanity is one very difficult of simulation, and but very little known in the community. Then, as shown in the prisoner's symptoms, was very coincident in all its bearings with the cases which we have; very much so. I have never known or heard of this form of insanity being simulated.

The calmness of the defendant after the act, coincides with common experience. The outbreak of an insane person seems a safety-valve by which to let off his accumulated excitement.

The outbreak or apparent commencement of the disorder, is frequently abrupt, and instantaneous. The other faculties of the mind than those affected, may remain comparatively vigorous. Cases of as short duration as the present, are not infrequent, though they can hardly be called common.

[Interesting cases illustrative of this and other points, were mentioned by Doctor Woodward during the examination.]

My view of this case is, that Rogers, seeing Mr. Lincoln enter with a stranger, and imagining that his time had come for punishment, felt an irresistible impulse to the homicidal act. My experience would lead me to think that all his thoughts were engrossed by this one idea of punishment, and that his other controlling motives, for the time being, ceased to act.

Isaac Ray, testified—

I am superintendent of the Maine State Hospital; have been such for about three years past. In that capacity I have had considerable experience in cases of insanity, and have

otherwise devoted a good deal of attention to the study of the subject, particularly to its medical jurisprudence. I am author of the Medical Jurisprudence of Insanity, bearing my name.

I have attended during this trial, and heard all the testimony which has been given.

Taking that to be true, I believe the defendant was insane at the time of the homicide. I have not heard a single fact testified to in regard to him, during the week of the homicide, which I consider incompatible with his insanity.

In regard to the reasons for my opinion, I can say but little different from what has been already said by Drs. Bell and Woodward. One other fact in addition to what was said by them, struck me forcibly; that there seemed to be no constant effort on his part to convey the impression that he was insane. In regard to the physical symptoms, I should say that these showed that something was the matter with the man. The state of his pulse, his coated tongue, and shrunken features plainly showed that he was diseased in some way.

I think I never saw, heard, or read, of a case of simulation of this kind. It would be extremely difficult to counterfeit it so as not to be detected.

CHARGE OF CHIEF JUSTICE SHAW TO THE JURY.

After some preliminary remarks on the general object of punishment by law, he said:

In order to constitute a crime, a man must have intelligence and capacity enough to have a criminal intent and purpose; and if his reason and mental powers are either so deficient that he has no will, no conscience or controlling powers, or if through the overwhelming violence of mental disease, his intellectual powers is for the time obliterated, he is not a responsible agent, and is not punishable for criminal acts.

If it is proved to the satisfaction of the jury, that the mind of the accused was in a diseased and unsound state, the question will be whether the disease existed to so high a degree, that for the time being, it overwhelmed the reason, conscience and judgment, and whether the prisoner in committing the homicide, acted from an irresistible and uncontrollable impulse; if so, then the act was not the act of a voluntary agent, but the involuntary act of the body, without the concurrence of a mind directing it.

The character of the mental disease relied upon to excuse the accused in this case, is partial insanity, consisting of melancholy, accompanied by delusion. The conduct may be in

many respects regular, the mind acute, and the conduct apparently governed by the rules of propriety, and at the same time there may be insane delusion by which the mind is perverted. The most common of these cases is that of monomania, when the mind broods over *one idea*, and cannot be reasoned out of it. This may operate as an excuse for a criminal act in one or two modes. Either the delusion is such that the person under its influence has a real or firm belief of some fact, not true in itself, but which if it were true, would excuse his act; as where the belief is, that the party killed had an immediate design upon his life, and under that belief the insane man killed him in supposed self defence. A common instance is when he fully believes that the act he is doing is done by the immediate command of God, and he acts under the delusive but sincere belief that what he is doing is by the command of a superior power, which supersedes all human laws, and the laws of nature. Or second, this state of delusion indicates to an experienced person, that the mind is in a diseased state, that the known tendency of that diseased state of the mind, is to break out into sudden paroxysms of violence, venting itself in acts of homicide, or other acts of violence toward friend or foe indiscriminately, so that although there were no previous indications of violence, yet the subsequent act, connecting itself with the previous symptoms and indications, will enable an experienced person to say, that the outbreak was of such a character, that, for the time being, it must have overborne memory and reason; that the act was the result of the disease, and not of a mind capable of choosing; in short, that it was the result of uncontrollable impulse, and not of a person acted upon by motives, and governed by the will.

The questions, then, in the present case, will be these:

1st. Was there such a delusion and hallucination?

2d. Did the accused act under a false but sincere belief that the warden had a design to shut him up, and under that pretext, destroy his life, and did he take these means to prevent it?

3d. Are the facts of such a character, taken in connection with the professional witnesses, as to induce the jury to believe that the accused had been laboring for several days under monomania, attended with delusion; and did this indicate such a diseased state of the mind that the act of killing the warden was to be considered as an outbreak or paroxysm of the disease, which, for the time being, overwhelmed or suspended reason and judgment, so that the accused was not an accountable agent?

If such was the case, the accused was entitled to an acquittal; otherwise, as the evidence proves the fact of killing beyond a doubt, without provocation, by the use of a deadly weapon, and attended with circumstances of violence, cruelty, and barbarity, he must undoubtedly be convicted of wilful murder.

In the course of the charge, and in the analysis of the evidence, the chief justice made some remarks upon the nature of the testimony of medical witnesses, to the following effect:

The opinions of professional men on a question of this description, are competent evidence, and in many cases are entitled to great consideration and respect. The rule of law, on which this proof of the opinion of witnesses, who know nothing of the actual facts of the case, is founded, is not peculiar to medical testimony, but is a general rule, applicable to all cases, when the question is one depending on skill and science, in any peculiar department. In general, it is the opinion of the jury which is to govern, and this is to be found upon the proof of the facts laid before them. But some questions lie beyond the scope of the observation and experience of men in general, but are quite within the observation and experience of those whose peculiar pursuits and profession have brought that class of facts frequently and habitually under their consideration. Shipmasters and seamen have peculiar means of acquiring knowledge and experience in whatever relates to seamenship and nautical skill.

When, therefore, a question arises in a court of justice upon that subject, and certain facts are proved by other witnesses, a shipmaster may be asked his opinion as to the character of such acts. The same is true in regard to any question of science, because persons conversant with such science have peculiar means, from a larger and more exact observation, and long experience in such department of science, of drawing correct inferences from certain facts, either observed by themselves, or testified to by other witnesses. A familiar instance of the application of this principle occurs very often in cases of homicide, when, upon certain facts being testified to by other witnesses, medical persons are asked whether, in their opinion, a particular wound described, would be an adequate cause, or whether such wound was, in their opinion, the actual cause of death, in the particular case. It is upon this ground that the opinions of witnesses who have long been conversant with insanity in its various forms, and who had the care and superintendence of insane persons, are received as competent evidence, even though they have not had opportunity to

examine the particular patient, and observe the symptoms and indications of disease, at the time of its supposed existence.

When such opinions come from persons of great experience, and in whose correctness and sobriety of judgment just confidence can be had, they are of great weight, and deserve the respectful consideration of a jury.

One caution, in regard to this point, it is proper to add. The professional witnesses are not to judge of the credit of other witnesses, or of the truth of the facts testified to by them. It is for the jury to decide whether such facts are satisfactorily proved. The question to be put to the professional witnesses, is this: If the symptoms and indications testified to by other witnesses are proved, and if the jury are satisfied of the truth of them, whether, in their opinion, the party was insane, and what was the nature and character of that insanity; what state of mind did they indicate; and what they could expect would be the conduct of such a person, in any supposed circumstances?

The jury retired to consider the case, but afterwards came in to ask further instructions upon the two questions.

"Must the jury be satisfied, beyond a doubt, of the insanity of the prisoner, to entitle him to an acquittal?

"And what degree of insanity will amount to a justification of the offence?"

On the first point, the chief justice repeated his foregoing remarks upon the same head; and added, that if the preponderance of the evidence were in favor of his insanity—if its bearing and leaning, as a whole, inclined that way—they would be authorised to find him insane.

On the second point, he added nothing material to the statement of the law already made.

The jury brought in a verdict of "*Not guilty by reason of insanity.*"

The court directed the confinement of the prisoner in the State Lunatic Hospital at Worcester, where he died a violent death some months after.

The circumstances attending his death, with other particulars relative to his health, state of mind, &c., while in the hospital, were given by Dr. Woodward in reply to a letter of inquiry, from Rogers' counsel, Messrs. Bigelow and Bemis, of Boston.

From this letter, we extract the following particulars.

When Rogers came to the hospital, he was not quite well, had a frequent pulse, and suffered from restlessness and want of sleep. On the 5th, 6th, and 8th of February, his pulse was

over one hundred per minute; he was pale, and looked anxious. On the 30th of March, and a few days after, he had another turn of sleeplessness. He complained of headache, vertigo, and loss of appetite. He looked ill, and was irritable. This turn passed off, and he appeared as well as before; worked steadily every day, attended evening prayers, and religious service on the Sabbath, and was calm and attentive at both. About the 15th of May, he was again excited, had headache, frequent pulse, furred tongue, and bad taste in his mouth, which he attributed to bad food. He told an associate that the food offered him was a corpse; he could smell it. He ate little, and did not work much the week of his death; said that he saw evil spirits in his room, and smelt corpses under his bed. His suspicion that he was to be poisoned or injured in some way, became quite strong, and was increased by these delusions, which seemed to get firm hold of his mind. He did not sleep from fear, believing that constant vigilance was his only security. During this time, he looked ill, appeared anxious and distressed. He desired to go to prayers the night he made the fatal plunge, and was not particularly uneasy until the services were nearly closed. He asked an officer near him to go out with him; that is, to his room. He told him the service was nearly ended. He then applied to his attendant, who also told him the same. He said to a patient near him, in a whisper, that the room was full of dead bodies. He appeared greatly agitated and apprehensive. Suddenly, he sprang from the window of the room, a distance of twelve or fifteen feet; and from the injury received from the fall, died thirty-six hours after, not being conscious of anything after the leap.

While at work in the shop, some days before his death, he appeared uneasy and suspicious, and looked wild and excited. He stepped into an adjoining shop, looked about anxiously, and returned to his work without speaking. During this week he appeared much as he did the week previous to the homicide. I have no idea that Rogers intended to commit suicide. His only object was to escape from dangers, which then seemed to cluster around him. He probably acted from impulse, and as is usual in such cases, was wholly regardless of the consequences of his movements at the time. After his death, some circumstances came to our knowledge, which led us to suppose that he had thought of attempting to escape; but as far as is known, he made no such attempt.

Dr. Woodward farther states, that there was a marked coincidence in his conduct immediately before the homicide, and

occasionally for many years previous, and after he came to the hospital; especially the week previous to his death.

These facts and his general appearance while at the hospital, confirm the opinion expressed on the trial, that Rogers was *insane* and *irresponsible* when he committed the homicide, and when he made the fatal rush which terminated his life.

In view of the facts presented at the trial of Rogers, together with the opinions of the medical witnesses, we are not surprised at the verdict of the jury.

Taken also in connection with his subsequent history, as given by Dr. Woodward, and the presumption is very strongly confirmed, that the homicide was committed under the influence of an insane impulse.

Neither is it surprising, that a man, of even Dr. Walker's ability, should have misjudged in regard to the state of Rogers' mind, when he came to the hospital, on the morning of the homicide. He had just heard of his disorderly conduct in his cell, and had witnessed, as the prisoner came in, some eccentricity of manner, which induced a suspicion against his candor. He saw him but for a moment, in company with others; and believing he came to deceive him, made no particular examination of his symptoms. He did not see or converse with the prisoner again until after the homicide, and, therefore, had no sufficient opportunity to judge of his mental condition before that occurrence. H. A. B.

N. Y. State Lunatic Asylum. [*Am. Jour. of Insanity.*

Some Hints on the most Efficient Modes of Administering Medicines. By a practitioner of half a century. — Many of the most important discoveries and improvements in medical science are rendered comparatively useless, in consequence of being unskilfully applied to actual practice. In no department of knowledge is this defect more conspicuous than in therapeutics. Man (and I believe the same remark applies to all created beings) is born with a kind of instinctive antipathy to physic, which antipathy he retains from the cradle to the grave. Look at the ingenious spoons that have been invented to force physic down the throats of infants! Observe the mantel-pieces of sick chambers, and count how many phials are either uncorked, or only half emptied! How great a proportion of mankind hate the very name of physic! If the stomach is apt to turn at the thought of medicine, when we are in health, how much less capable is it to bear nauseous

drugs in the various forms of disease, nine-tenths of which affect the stomach sympathetically with squeamishness, nausea, and aversion to food as well as physic? The evil consequences of nauseous forms of medicine being used in sickness, are great beyond all calculation or belief. One result is, that medicine is not taken in sufficient quantity, sufficiently often, or for a proper length of time.

What practitioner will fail to recognise the following picture of almost daily occurrence? A medical man is in anxious attendance on a patient — say a lady after confinement, and threatened with some grave malady, peritonitis, for instance— he prescribes what he conceives to be active and efficient remedies for the night, and gives strict injunctions to the nurse. In the morning, when he calls, he meets the nurse on the stairs. Have you given your mistress the medicines punctually? Most punctually, sir. Well, what has been the effect? "Brought everyting up again sir." What, all? "Every drop, sir—and I thought she would have brought her very heart up with it." After such intelligence, the feelings of the doctor, on entering the chamber, are not particularly enviable. Now all this is more frequently owing to the form than the substance of the medicine exhibited.

In chronic diseases, where the remedial process is necessarily chronic also, we are daily baffled by the repugnance, nay, the resistance of the patient to a protracted course of physic. Yet it might very generally be so contrived, that the patient would desire rather than loathe his medicines.

I am aware that in some acute diseases, the state of nausea itself is desirable and salutary. But it is not the mere nausea or sickness which lessens the velocity of the circulation, opens the secretory vessels, and checks inflammation. These remedial processes depend much upon the *quantity* of medicine, say antimony, which the patient can bear in order to induce them. Thus double or triple the quantity of tartrate of antimony will be borne, before sickness is induced, if given in an effervescing draught, as compared with the same medicine given in plain water. And the remedial effects will be in proportion. This is a truth that should ever be held in mind, and the principle was well understood by Rasori, Thomasini, and others. The contra-stimulant effects of antimony are trifling during the nausea and sickness at the beginning. It is when the *tolerance* is acquired that the inflammation or high fever is controlled.

But there is a large class of diseases in which the stomach is morbidly irritable, and where nauseating medicines are pos-

itively injurious. Putting aside the multitudinous forms of dyspepsia, we have affections of the uterus, the kidney, the liver, the pancreas, &c., where the stomach is prone to disordered function, and where it is of the greatest consequence to exhibit medicines in forms that will tranquillize rather than nauseate the stomach. Diseases and disorders of the kidney are now acknowledged to be much more frequent than they were formerly suspected to be—and these are very generally attended with gastric irritability. In these it is of great importance not to ruffle the stomach by medicines. In affections of the brain, now so exceedingly common in consequence of the advanced stage of civilization, and the operation of various perturbing moral causes, the stomach is often the organ most conspicuously deranged—and we are not seldom foiled in the exhibition and perseverance of proper remedies, from the sympathetic disorder of stomach.

Nine-tenths of the cures that are said to be performed by homœopathy, result from the spare diet and the nullity, as it were, of medicine employed. Of all the medicines that are prescribed by the physician, the class of salines are the most generally beneficial, as opening the secretory organs, as the skin, the liver, the kidneys, &c., besides improving the state of the blood, and restraining febrile action in the constitution. These, when exhibited in an effervescing state, are far more palatable, as well as more efficacious, than when given in a plain form.

Tonics, on which the routine practitioner so much relies, and which he exhibits with no sparing hand, are more frequently injurious than beneficial. They give a feeling of tone for a time; but they lock up the secretions, increase too much the appetite, and lay the foundation for future states of plethora, congestion, or indigestion.

Now saline effervescents may be made the vehicle for many of the most powerful tonics, and indeed the most potent medicines which we possess. The citrate of iron, colchicum, antimony, arsenic, quinine, iodine, &c., &c., may all be exhibited in a form that increases their remedial efficiency, and lessens their tendency to nauseate the stomach.

Bulletin of Medical Science.

On the Use of Iodide of Potassium in Asthma. By W. B. Casey, M.D., of Middletown, Connecticut. Mr. Editor: For a year past I have looked through the various journals that came under my observation, in the expectation of seeing some

notice of the subject of this article; but have, up to this time, met with but a mere incidental mention of the fact that hydriodate of potash has been employed with some benefit in asthma. I therefore send you the result of my experience with it, trusting that the statement which I make will excite the attention of our profession, and lead to a trial of the remedy on a more extensive scale. Some two years since, Professor Mütter, of Philadelphia, mentioned in the course of conversation with me, that he had accidentally discovered the fact to which I am now endeavoring to draw attention.

I immediately after this commenced its use with a number of patients suffering under this distressing and intractable complaint, and to our mutual delight, they were all more or less speedily relieved. I have now made use of the medicine in some twenty-five or thirty cases of asthma, some of them very severe and aggravated; and so far, in no one instance where a fair trial has been made, has it failed to afford unequivocal and decided relief. These facts I have stated at our county medical meetings, and have urged the adoption of the practice upon many of our neighboring physicians; and so far as I can ascertain the result, all who have tried the remedy will endorse my statement of its value. I am happy to add the testimony of Dr. North, an eminent physician resident at Saratoga Springs, who informs me that he has experienced in his own person, great relief from the use of the medicine, and has witnessed the same effect in others. As a general rule, the patient is benefitted after a few days' employment of the article, but some cases will require more time, perhaps weeks before they improve; in one of mine, a very severe case of over twenty years' duration, I persevered for nearly three months before there was any decided amendment.

I feared, at the outset, that the medicine would prove to be merely a palliative, (and even then it would be invaluable,) but further experience warrants my belief that in mild cases of recent date a cure may be effected by its means.

In almost one-fourth of my cases, relapses have occurred after discontinuing the remedy; this occurrence, however, was, in most of them, owing to severe attacks of catarrh, or to errors in diet and consequent derangement of the digestive organs, which, by the way, should never be overlooked in the treatment of asthma; I may mention in this connection, that most of my patients, while using this medicine, had an excellent appetite and gained flesh rapidly.

A long continued use of the iodide of potassium will, in some subjects, occasion an eruption, generally of a pustular

form, (almost always ecthyma;) and I have twice been disposed to attribute to it the occurrence of a slight conjunctivitis; the omission of the medicine for a few days, together with a few doses of rhubarb and soda, will be found sufficient for the removal of these inconveniences. It would scarcely be worth while to offer at the present time any explanation of the modus operandi of this medicine in asthma; nor is it necessary here to describe the symptoms, pathology, &c., of the disease, my sole object being to bring into notice what I have found a successful remedy for a distressing complaint. Extended experience must determine its value and applicability.

From two to five grains of the iodide of potassium, given three times a day, dissolved in water or some syrup, as, for instance, that of sarsaparilla or tolu, will generally be found sufficient for ordinary cases of the disease. Its continuance must be regulated by the circumstances of each case; of course no intelligent practitioner need be reminded of the attention requisite as regards diet, clothing, and exercise. Dr. North stated that he had taken ʒss. at a dose at bedtime, without inconvenience, and with the effect of preventing the paroxysm usually occurring at night.

Some of your readers may perhaps find fault with this paper, on account of its crudeness of style, and want of method and arrangement; but the practical physician, who will make fair trial of the remedy, will hardly be disposed to criticise the style of the article, or consider as wasted the time spent in its perusal.

Note.—It may not be uninteresting or irrelevant to mention that I have given the hydriodate of potash to several horses troubled with "the heaves or hives," (I am doubtful as to its orthography,) and in all, while under the influence of the medicine, the disease was suspended.

New York Journal of Medicine.

Amputation in the Prairies.—The following case of successful amputation on one of our western wilds, has been going the rounds of the journals; we insert it here, as it furnishes another to the many evidences which we already possess. of the great resources of nature, which, under the most adverse circumstances, is capable of accomplishing so many unexpected and surprising results:

"A few days before the caravan had reached Walnut Creek, a Mr. Broadus, in attempting to draw his rifle from a wagon,

muzzle foremost, discharged its contents into his arm. The bone being dreadfully shattered, the unfortunate man was advised to submit to an amputation at once; otherwise, it being in the month of August, and excessively warm, mortification would soon ensue. But Broadus obstinately refused to consent to this course, till death began to stare him in the face. By this time, however, the whole arm had become gangrened, some spots having already appeared above the place where the operation should have been performed. The invalid's case was therefore considered perfectly hopeless, and he was given up by all his comrades, who thought of little less than to consign him to the grave. But being unwilling to resign himself to the fate which appeared frowning over him, without a last effort, he obtained the consent of two or three of the party, who undertook to amputate his arm, merely to gratify the wishes of the dying man, for in such a light they viewed him. The only 'case of instruments' consisted of a handsaw, a butcher's knife, and a large iron bolt. The teeth of the saw being considered too coarse, they went to work and soon had a set of fine teeth filed on the back. The knife having been whetted keen, and the bolt laid upon the fire, they commenced the operation; and in less time than it takes to tell it, the arm was opened round to the bone, which was almost in an instant sawed off, and with the whizzing hot iron, the whole stump was so effectually seared as to close the arteries completely. Bandages were now applied, and the company proceeded on their journey as though nothing had occurred. The arm commenced healing rapidly, and in a few weeks the patient was sound and well, and is perhaps still living to bear witness to the superiority of the 'hot-iron' over ligatures in 'taking up arteries.'"—*Gregg's Commerce of the Prairies.*

Mesmerism.—After the unequivocal and almost unprecedented exposure to which the fraud of mesmerism was subjected, under our own immediate guidance and inspection, we did not consider that it would again be necessary to notice such a piece of arrant trickery and scandal in our columns; but a proper feeling of gallantry demands that we should not pass unnoticed the literary production with which that well-known lady, Miss Martineau, has favored the profession and the public, in the number of the *Athenæum*, journal of literature, for November 23. Miss Martineau, it appears, has long been an implicit believer in the powers of "mesmerism," and

yet omitted to resort to that art for aid, although laboring, as she believed, under an incurable disease, during a confinement to her room of four and a half years' duration—a circumstance which seems to us to be entirely inexplicable, and renders the statement of her suffering for so long a period, and her firm belief in the efficacy of the remedial agency of mesmerism, utterly inconsistent and irreconcilable. If Miss Martineau had been considered to be a quack in politics and literature, her present performance might have been regarded as unworthy of attention. It might have been considered, that in producing the essay now before us, she had not manifested any unusual extravagance of thought, pretension, or feeling. But, inasmuch as she has attracted much notice, and the opinions of the world are strikingly divided as to the character of her mental and literary labors, we apprehend that her recent performance in mesmerism will be attended with a different result, and that only one opinion will or can prevail concerning its true nature and objects. To the sober judgment, then, of our medical readers, we commit the following extracts from an essay on mesmerism, by an aged maiden lady:

"One very warm morning in August, when everybody else was oppressed with heat, I was shivering a little under the mesmeric influence of my maid—the influence, in those days, causing the sensation of cold currents running through me, from head to foot. 'This cold will not do for you, ma'am,' said M. 'O!' said I, 'it is fresh, and I do not mind it;' and immediately my mind went off to something else. In a few minutes I was surprised by a feeling of warm water trickling through the channels of the late cold. In reply to my observation, that I was warm now, M. said, 'Yes, ma'am, that is what I am doing.' By inquiry and observation, it became clear to me, that her influence was, generally speaking, composing, just in proportion to her power of willing that it should be so."—*Athenæum*, No. 891, pages 1071–72.

"As the muscular power oozes away under the mesmeric influence, a strange inexplicable feeling ensues of the frame becoming transparent and ductile. My head has often appeared to be drawn out, to change its form, according to the traction of my mesmerist, and an indescribable and exceedingly agreeable sensation of transparency and lightness, through a part or the whole of the frame, has followed. Then begins the moaning, of which so much has been made, as an indication of pain. I have often moaned, and much oftener have been disposed to do so, when the sensations have been most tranquil and agreeable. At such times, my mesmerist

has struggled not to disturb me by a laugh, when I have murmured, with a serious tone, 'Here are my hands, but they have no arms to them;' 'O dear! what shall I do? here is none of me left!' the intellect and moral powers being all the while at their strongest. Between this condition and the mesmeric sleep there is a state, transient and rare, of which I have had experience, but of which I intend to give no account. A somnambule calls it a glimmering of the lights of somnambulism and clairvoyance. To me there appears nothing like glimmering in it. The ideas that I have snatched from it, and now retain, are, of all ideas which ever visited me, the most lucid and impressive. *It may be well that they are incommunicable*—partly from their *nature* and *relations*, and partly from their *unfitness for translation into mere words.* I will only say that the condition is one of no 'nervous excitement,' as far as experience and outward indications can be taken as a test. Such a state of repose, of calm translucent intellectuality, I had never conceived of; and no reaction followed, no excitement but that which is natural to every one who finds himself (query, *herself*) in possession of *a great new idea.*"—*Idem*, page 1072.

[The following letter from Dr. Robert Hull, of Norwich, where Miss M. resides, has more recently appeared.]

"This admired writer has, however, thought right to announce her case publicly as one of successful mesmerism—and the interests of truth and society compel the antagonists of this medical heresy to analyze, so far as possible, the history, and falsify the conclusion, that, because the patient is well, the mesmeric aura has effected her cure. Now, although the laudable delicacy of this extraordinary lady hath suppressed the details of her malady, yet I have a right to assume that the circulated whispers were well founded, and that the malady was abdominal tumor. Here (in Norwich) this celebrated author is too well known that her age can be any secret; and her amiable and simple character would render her careless to conceal. And she will not be surprised, therefore, nor angry, if she is told, that she has been laboring under the climacteric disorder of her sex; that this often produces a physcony of the abdomen, with oppression and universal languor; that in such circumstances the single woman is terrified with ideas of cancer, dropsy, and organic diseases; the married lady fancies she is about to multiply the species, and her fond husband provides a doctor and the nurse. A case of this kind is reported in the person of a Mrs. Trunnion, by Dr. Smollett; and instances of the first-named deception in

spinsters are daily occurring. But nature goes through her proceedings; the abdominal tumefactions subside; and when the climacteric period has passed, women often enjoy better health and longer life than the other sex. In this particular case of our popular townswoman let not the mesmerizer triumph! The success was due to the natural process, aided by the vigor obtained from faith and hope. Hence energy, exercise, air, *omission of opiates*—and it seems to me that this delightful result would have been earlier effected—I mean the natural cure—had not the patient become, from her own confession, a complete opium-eater. She had poisoned herself for years with this exterminating drug. To conclude: my firm persuasion is, that this vaunted case is one of thousands, in which the mind has relieved the body from *functional*, not organic disorders; while ladies of a particular age will do well *not* to applaud Mesmer for the cure of their peculiar symptoms, which time and the physician will generally cure, unless baffled by pernicious treatment; and that young ladies should be especially careful to eschew this revived foolery, which in many instances hath created, instead of relieved, tumors of the abdomen."—*London Lancet.*

On the Use of Arsenic in Destroying the Sensibility of a Carious Tooth, Preparatory to Filling. By Edward Taylor, M.D., Natchez. It is only when there is considerable inflammation and great sensibility in the carious bony structure of the tooth, that arsenic, or any other agent than an excavator, can be advantageously employed, and when, too, from the greater activity of the circulation, most danger is to be apprehended from so virulent a poison. But in the employment of it for this purpose, though it be applied under the restrictions recommended by Dr. Ide, in volume 2, page 247, of the American Journal of Dental Science, I regard it as an unsafe remedy, when the destruction of the pulp is not desired, and have discarded its use altogether, except in such cases.

There must always be more or less absorbed and taken into the general circulation, and the effects produced by it are in proportion to the quantity employed and the vascularity of the tooth. The irritation which it first excites in the part induces a determination of blood to it, and if the vascularity be great, the tooth will frequently become injected with red blood, which I have never known to happen in the treatment of a diseased tooth where arsenic had not been used; and I have

no doubt that this will account for the injection of the tooth in the case mentioned by Dr. Norton in the last number of the fourth volume of the Journal. It may also serve as an answer to his first three inquiries. When the structure of the tooth is more dense and less vascular, several months will sometimes elapse before any inflammation will be evinced, and when once developed I have seldom been able to subdue it so as to preserve the pulp, and have often had the extreme mortification to see teeth, the health and beauty of which I had thought preserved, become a source of pain and annoyance.

The history of a single case may suffice to show its evil effects. About two years since I applied a small portion to the front incisor, (of a lady about 30 years of age,) of yellow, dense structure, for three or four hours. I then removed the diseased bone and filled it with gold, and received her hearty thanks for doing it with so little pain. In a few weeks it became subject to considerable pain upon the introduction into the mouth of anything hot, which, however, was borne with for some time, but finally it became so painful and discolored that she called for advice. The tooth was *very* purple, with severe throbbing. I applied several leeches and directed Seidlitz powder, which soon gave relief, but the next day it was as bad as ever, when the same treatment was observed with the same result. The day following it was as bad as before. I then removed the plug, and drilled to the nerve cavity, when a free discharge of blood ensued, which gave immediate and permanent relief so long as the opening remained. In a week or ten days I cleansed out the nerve cavity to near the end of the fang and filled it with gold, but in a day or two was obliged to remove the filling, when another free discharge of blood ensued, and afforded entire relief. I then introduced a tube, and filled the artificial cavity, which answered well, so long as the tube remained open; but during a short absence, it became obstructed, and an abscess was formed and discharged itself along the neck of the tooth. Thus, to avoid a few minutes' pain, she had suffered for days, and is disfigured by an unsightly tooth, which she must soon lose. A remedy of such specific action, without its injurious effects, would certainly be a desideratum; and if any of our professional brethren are acquainted with such an agent, I, for one, would be thankful to have them communicate it.

American Journal of Dental Science.

Punishment of Quacks in Olden Times.—At a period when quackery is prevailing to such an unprecedented extent amongst us, it may be of advantage to indicate some of the punishments that were formerly inflicted in England on these impudent impostors. We copy the following instances which we find recorded in a recent number of the *Provincial Medical and Surgical Journal:*

"In Edward the Sixth's reign, one Grig, a poulterer, in Surrey, was set in the pillory at Croydon, and again in the Borough of Southwark, during the time of the fair, for cheating people out of their money, by pretending to cure them by charms, by only looking at the patient, or by casting his water.

"In the reign of the first James, the council despatched a warrant to the magistrates of the city of London, to take up all reputed empirics, and bring them before the censors of the college, to examine how properly qualified they were to be trusted either with the limbs or lives of his Majesty's subjects.

"Dr. Lamb, a most noted quack, and who had got a large fortune by his pretended medicines, was at last obliged to confess he knew nothing of physic.

"Read and Woodhouse, two other contemporary quacks, were likewise brought to justice, and acknowledged the same.

"In Stowe's Chronicle we meet with a relation of a water-caster being set on horseback, his face to the horse's tail, which he held in his hand, with a collar of urinals about his neck, led by the hangman through the city, whipped, branded, and then banished.

"Fairfax was fined and imprisoned in King William's time for doing great damage to several persons by his 'Aqua Celestis;' also one Anthony, with his 'Aurum Potabile;' Arthur Dee, for advertising medicines which he gave out would cure people of all diseases; Foster for selling a powder for the green sickness; Aires for selling purging sugar-plums; and Tenant, a urine-caster, who sold his pills at a pound each. Hunt was punished for putting up bills in the streets for the cure of diseases; and Philips, a distiller, for selling strong waters, inserting in the directions what they were good for, and how persons were to take them."

New York Medical Journal.

THE WESTERN JOURNAL.

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UNOFFICIAL EDITORIAL NOTICE.

The undersigned takes this method of making known to those who may wish to consult him professionally, and also those who may have it in their power to send him facts on the diseases of the Valley of the Mississippi, fitted for the work in which he is engaged, that he will, after the present month, be in Cincinnati, throughout the approaching vacation of the Institute, except in the months of July and August.

DAN. DRAKE, M.D.

STUDY OF BOTANY BY YOUNG PHYSICIANS.

We seize the occasion afforded by the publication, in this number, of an article on the Flora of Illinois, from our respected colleague, Professor Short, to commend the study of Botany to the young physicians of the West. After traveling, within the last three years, nearly 15,000 miles, between and on the Lakes and the Gulf of Mexico, we are able to recollect (out of Louisville) the fol-

lowing physicians only, who cultivate that science. Dr. Carpenter, of New Orleans, one of the Professors of the Medical College of Louisiana, who at the same time attends to other branches of physical science; Dr. Hale, of Alexandria, Louisiana; Dr. Engelmann, of St. Louis, whose communications in relation to some of the objects of this science, have, we understand, been published in Europe, and elicited a complimentary notice from the highest authorities; Dr. Mead, of Illinois; Dr. Chapman, of Quincy, Florida, from whom we have reason, soon, to expect a systematic catalogue of the plants of that El Dorado of American Botanists; Dr. Peter, now Professor of Chemistry in Transylvania University; Dr. Clapp, of New Albany, Indiana; Dr. Bigelow, of Lancaster, Ohio, who has published a local catalogue; Dr. Warder, of Cincinnati, whose city residence, professional duties, and taste for other branches of natural history, are, however, diverting him from the study of plants; Dr. Houghton, of Michigan, its chief geologist, and a professor in its University, who, to medicine, has added the cultivation of botany geology, and mineralogy; lastly, Dr. Riddell, formerly of Ohio, and author of a catalogue of its plants, now, however, a professor of Chemistry in New Orleans, and Refiner of the Mint. Thus, he has abandoned the gardens of *Flora* for the smithies of *Plutus!* When we saw him last spring, instead of being engaged in arranging and describing an herbarium of rare plants, which he had brought from the interior of Texas, two or three years before, his spare time was diligently devoted to the preparation of a book of fac similies of all the spurious coins he could gather together! A collector of flowers transformed into a collector of counterfeit dollars! Well was it for the goddess, that she died off 1800 years ago—happy for her, that she did not live to witness the backsliding of one of her most ardent and gifted sons. To come nearer home with this criticism; we are obliged to state, that Dr. Clapp, after many years of diligent research as a local botanist, has, also, been diverted from the study, but in a different direction from that of Dr. Riddell. Enamoured with the organic remains, and especially the fossil corals, with which the rocks of this neighborhood abound, he has given up his leisure time to *their* study; und with a zeal, rare, indeed, in middle life, and therefore the more admirable, has even studied the German language, for the sole purpose of reading a single distinguished, untranslated work on that branch of Natural His-

tory! It must not be said, that these pursuits have been at the expense of his profession; for, in both its literature and practice, he 'keeps up with the times.' And so might *hundreds* of our brethren, if they had the same industry and love of science. But we must come closer to our main object.

Why is it, that in the Great Valley and its borders, all parts of which abound in native plants, not a dozen physicians, cultivate the science of Botany? Does it indicate, that they have maturely investigated and rejected its claims upon them? We trow not. Most of them have given so little attention to the subject, that they cannot even tell, whether that which at any time strikes their eye, is a 'botanical plant' or not. No, the truth is, they cannot so much as pretend that they have intelligently decided whether they ought to study botany. But, perhaps, their leisure time is given up to other collateral and auxiliary branches of science:—to geology, as disclosing the composition of the surface of the earth, and the waters it spouts up—thus illustrating the probable origin of certain diseases of their neighborhood—to zoology and comparative anatomy—to systematic and diversified meteorological observations—to post-mortem inspections and pathological anatomy! No, such is not the fact. These departments are as little cultivated as botany. In a spirit of rigid justice, the strictest impartiality is observed—and no branch can boastfully say to the rest, *I* am the favorite. Again, however, we must return to the proper subject of our homily.

What, then, are the reasons, that so few of our younger brethren cultivate botany? They appear to be chiefly the three following—1st. The want of studious habits. 2d. The want of scientific taste. 3d. The want of classical learning. Now, we can give a prescription for the whole of these wants, which, if taken, will be infallible—it is, at once to enter on the study of the science, whose claims we are asserting. The collection and examination of plants will promote industry, inspire a love of nature, and prompt to the study of the Latin language. By the end of the first year after graduation, all will be easy. An hour in the twenty-four devoted to the examination and preservation of the plants, collected in visiting a patient, and another dedicated to the Latin grammar and dictionary, would, after deducting eight for sleep, leave fourteen for other reading and attendance on the sick—several more, we apprehend, than are usually occupied. Such are the easy terms, on which all that

we recommend, might be accomplished. Now what are the special motives for pursuing this course? We will enumerate a few.

1st. Every physician ought to have some knowledge of the learned languages; but when he has not studied them at school, he will not do it after graduating, unless he have a particular object in view. The cultivation of Botany would be such an object. Moreover, most of those who do acquire some knowledge of those languages, before they engage in the study of medicine, lose it in a few years; but the study of Botany would not only preserve, but extend it.

2d. The Valley of the Mississippi is not, like Europe, exhausted of its indigenous vegetation, but abounds in native plants, many of which are peculiar to it, and interesting for their beauty or singularity.

3d. Its different latitudes and soils present nearly all the medicinal plants of the United States, not a few of which are deserving of more attention than they have received, and ought to be made subjects of pharmaceutic and clinical experiment by our physicians, as they undoubtedly would be, if botany were studied.

4th. Botany is a science of visible relations—and its study is eminently fitted to improve the faculty of observation.

5. The chemico-vital and vegetative functions of animals and plants, as developed in these latter days, have so many common characters or close analogies, that no physiologist can be either profound or comprehensive in his knowledge, unless it embrace the latter as well as the former, a new motive for adding botany to his other studies.

6th. Without an acquaintance with the elements of Botany, even a common dispensatory is in part a sealed book to the physician; but such ought not to be the case. When he sees at the beginning of an article the words, *Datura Stramonium*—Pentandria Monogynia—Nat. Ord., Solaneae, he recognizes in the first a name, but, if ignorant of the science, is unable to tell his student, or realize to himself, that the other words are full of meaning, both as to the forms and qualities of the plant.

7th. The physician who practises in the country, would find an interest in the flowers which smile along his path, well calculated to relieve the *tedium* of his solitary rides; and this pleasure would

sometimes reward him, for labors which might bring no other compensation.

Students and young physicians are often deterred from entering on the study of botany, by its repulsive nomenclature, and the immense number of its subjects; but there is no science in which they are sooner overcome—no temple in which the difficulties are so much congregated in the vestibule, as that of Flora. A great number of the hard words spring from the same roots, and are but modified multiples of each other. Moreover, most of them are words with which every man belonging to the profession of medicine, ought to be acquainted, independently of their use in botany. Then, again, as to the multitude of plants, they constitute natural groups or families, the different members of which, have so many characters in common, that when one has been studied, all the rest become quite easy. Take, as an example, the genus *Quercus*, or oak. When the flower and fruit of one species are known, it only remains to compare the leaves of trees having the same fructification, to make out the thirty-two species, which Nuttall tells us are indigenous to the United States.

Our limits do not admit of other suggestions. We look forward with much interest to the publication of Professor Short's Flora of the Mississippi Valley. His collections, the labor of a quarter of a century or more, are of vast extent; and we cannot but cherish the hope, than when his book shall appear, it will give an impulse to the study of botany throughout the extended region, from which its materials have been drawn; and upon which we cannot doubt it will confer scientific distinction. D.

CINCINNATI JOURNAL OF HEALTH.

Our excuse for not sooner noticing this modest but meritorious little journal, is, simply, that we did not know of its existence. It is conducted by the "Physicians of the Cincinnati Dispensary and Vaccine Institution," and is published monthly, each number containing sixteen pages, 8vo., double columns. The object of the journal is to diffuse a knowledge of the laws that govern health, and of the causes that produce disease. It explains briefly various points of

Anatomy and Physiology; demonstrates such sources of disease as may be avoided by the community; discusses the subjects of dress, diet, and exercise; shows the effects and tendencies of improper modes of taking medicines; points out the antidotes for poisons, &c. &c.; all of which is couched in language suitable to the popular understanding. In a word, it is intended to make the journal a welcome and appropriate family vistor. It deserves to be extensively patronized, and we trust that it is. C.

KENTUCKY INSTITUTION FOR THE EDUCATION OF THE BLIND.

The '*Third Annual Report*' of this interesting establishment has just been laid on our table. It presents much to interest every benevolent mind. Within the past year, the Board of Visitors have erected a capacious, commodious, and beautiful edifice, in the edge of Louisville, which will be finished in the course of the ensuing Spring.

The number of pupils is 22, varying in age from 9 to 24 years. They are contented and make good progress in spelling, reading, writing, arithmetic, music, and various handicraft arts. They, in general, enjoy good health. Indeed, it has been found that the health of almost every pupil, has improved since coming into the institution—the beneficial result of regular training, in regard to study, exercise, diet, and sleep. Why is it, that so few of the numerous blind persons of the State, are found in this most eligible asylum? We fear, that our brethren do not very faithfully discharge their duty, towards those whom they have been unable to protect or restore from blindness. The people need instruction and exhortation; and who are so well qualified to impart both, as their family physicians? To aid them in this matter, we mention from the Report, that the annual expense of a pupil is one hundred dollars, payably quarterly in advance. This covers board, lodging, washing, tuition, music, books, and stationary; and certainly it is low. No child can be admitted under six nor over fifteen years of age: except by special permission of the Board. Indigent children, of residents of the State of Kentucky, are admitted, supported and taught *gratuitously;* provided it be avouched by a magistrate or

some other respectable person, that neither the parents nor the near relations, are able to meet the expense.

In every instance of application for admission, answers must be made to the following questions: 1. *What is the name of the applicant?* 2. *When and where born?* 3. *What are the names of the parents?* 4. *Are they living?* 5. *What is the name of the post-office nearest to their residence?* 6. *What are the pecuniary circumstances of the parents and relations?* 7. *Is the blindness total?* 8. *If not, what degree of vision remains?* 9. *How was the blindness produced?* 10. *Is the applicant of good natural capacity, and free from bodily defects, and offensive and infectious diseases?* 11. *Are there other instances of blindness in the same family, or among their relations?*

All communications must be directed, post-paid, to Mr. Bryce M. Patten, Director. Louisville, Ky.

Anxious to give our notice a practical character, we have transcribed the terms and conditions of admission, that our brethren, throughout the State, may have and impart the information, necessary to correct action, by those who may desire to place their children in the institution.

We may add, for the benefit of those who live out of Kentucky, that pupils from other States are admitted. There is already one from New Orleans. We hope there will be many more from different parts of the West and South; for the number who are now groping and vegetating in total darkness, is very great.

We are happy to learn, that a bill for the benefit of the institution, has passed the legislature of Kentucky. D.

COOPER ON THE TESTIS.

The two great works of Sir Astley Cooper, "The Structure and Diseases of the Testis," and the "Thymus Gland," have been issued by Lea & Blanchard in a volume of large size and great beauty. As a specimen of typography, it is one of the most creditable that has yet come from the American press. As a work of science, it is esteemed one of the most able of the many able productions of its eminent author. No authority in surgery is higher than that of Sir Astley Cooper, and in this elegant volume it will be found

that he embraced, ten years ago, nearly all that is known in regard to the anatomy and surgery of the testis. It is to be hoped that the enterprising publishers will be encouraged to continue the publication of the works of Sir Astley in this style. Y.

TAYLOR'S MEDICAL JURISPRUDENCE.

From the same publishers we have received a copy of Taylor's Medical Jurisprudence, with notes and additions by Dr. Griffith. The size of this volume renders it convenient, and altogether it appears to us adapted to its purpose—that of forming a guide to the medical jurist. It ought to be studied, and we can venture to say that few books in the same compass contain a greater amount of instructive and interesting matter. We shall have more to say of it hereafter. Y.

BLOOMINGDALE ASYLUM FOR THE INSANE.

To Dr. Pliny Earle, physician to the institution, we are indebted for an able report on the present state of the asylum for the insane, at Bloomingdale, in New York. The report is very full, and embraces a multitude of details of the highest interest. Of 106 patients in the hospital, 50 were cured in the course of the year, and 6 others are reported as being detained until their cure, now far advanced, shall be confirmed. It is plain that this institution is not behind any other in our country in the adoption of those improved modes of managing the insane, which are among the boasts of modern practical medicine. Y.

THE

WESTERN JOURNAL

OF

MEDICINE AND SURGERY.

APRIL, 1845.

ART. I.—*Lectures on Diseases of the Chest.* By J. R. BUCK, M.D., Lecturer on the Theory and Practice of Medicine in the Louisville Summer School of Medicine.

LECTURE 1st.

The organs of the chest can only be examined through the walls of this cavity; and to be able to do this with any degree of accuracy, it is absolutely essential that their healthy relations be understood. To facilitate this understanding it is customary to map out upon the chest a number of artificial regions by imaginary lines drawn from point to point on its circumference. There are four of these regions anteriorly—four posteriorly, and three laterally upon each side of the median line.

Anteriorly.—1st. Clavicular region—space covered by clavicle; the post-clavicular depression is also embraced in this region.

Infra-clavicular region, extending from clavicle to fourth rib.

Mammary region, from fourth to eighth rib.

Infra-mammary region, from eighth rib to base of chest.

Posteriorly.—Acromial, from spine of scapula to the upper margin of post-clavicular region in front.

Scapular region, space covered by the scapula.

Inter-scapular region, between the bone and spinous processes of the vertebræ.

Infra-scapular region, from lower edge of this bone to base of chest.

Laterally.—Axillary region, arm-pit to fourth rib.

Middle lateral region, from fourth to eighth rib.

Inferior lateral, from eighth rib to base of chest.

Thus it will be seen that there are twenty-two regions, eleven on each side of the median line.

Having ascertained the localities of the different regions, the next objects of study are their contents, what organ, organs or parts of organs are contained in them, the relation of the individual parts to different portions of the regions; and 2dly, the evidences of a healthy condition of these organs. In the clavicular regions you have only the apices of the lungs; conical projections occupying the small space between the anterior and posterior walls of the chest. These regions derive their chief importance from being the point where tuberculous deposit almost uniformly first occurs. In the infra-clavicular region the upper lobes of the lungs, the larger bronchi, the base of the heart, and the ascending aorta and pulmonary artery, are found, the base of the heart, bronchi, and bloodvessels existing near and under the sternum. It is important to mark the contents of these regions; first, that in the diagnosis of cardiac diseases, more especially diseases of the valves, it is essential that you have an accurate knowledge of the relation of each individual portion of the heart as well as of the ascending aorta and pulmonary artery to the parietes of the chest. Secondly, The larger bronchi existing here, the respiratory sounds differ somewhat from those

heard in the superior regions. And lastly the upper lobes of the lungs, although the same in structure as that in the clavicular region, being so much thicker in consequence of the gradual expansion of the chest from above downwards, modifies somewhat the physical signs either of a healthy or morbid condition.

In the mammary region, the middle lobes of the lungs and heart, are situated; the heart being principally in the left mammary region and beneath the sternum.

In the infra-mammary regions, the lower lobe of the lungs, and portion of liver on right side, and stomach and spleen on left side, exist.

Posteriorly—Acromial region. This region like the clavicular is occupied by the apices of the lungs—but the chest at this point is covered by dense muscle—hence in percussing the chest in the two regions, a different degree of resonance is elicited.

Scapular region. Here the middle and upper lobes of the lungs are both found—but an examination posteriorly has to be made through the scapula. Inter-scapular region.—Roots of lungs and large bronchi—the bronchi being nearer the surface *here* than anteriorly, the blowing sound of respiration as well as the morbid sounds formed in the larger bronchial tubes, are heard most distinctly in this region.

Infra-scapular region. Lower lobes of lungs—liver on right, and stomach and spleen on left,—the precise point upon the chest at which the lungs and liver come in contact varies so much in different subjects, and in the same subject at different periods of the respiratory process, that we are compelled to resort to percussion to determine it in each individual case.

Laterally.—Axillary region. Upper lobes of lungs. Middle lateral—middle lobes of lungs.

Inferior. Lateral—lower lobes of lungs and liver on right side; the stomach and spleen on the left.

In the healthy chest, such are the contents of the various regions. But in certain diseases, both of the abdominal and

thoracic viscera, these relations are very materially changed. The physiological or healthy condition of the contents of the thoracic regions can only be ascertained certainly by physical examination; for although the general symptoms when present indicate disease, their absence is by no means proof conclusive of the absence of disease. For here, as elsewhere, disease may exist in a state of latency in regard to the general symptoms, and it is only by the conformation of the chest, and by the sounds elicited upon auscultation and percussion, that we are enabled to determine the healthy condition of these organs.

Conformation of the Chest.—The healthy chest is an irregular truncated cone, the apex being above and the base below: on its external surface exist various irregularities, dense muscles, scapula, clavicle, and in the female the mammary glands. Anteriorly there is a slight projection at the apex, caused by the clavicle, with a depression above and behind it: this depression varies with the degree of muscular and adipose development in the subject; immediately beneath the clavicle from that bone to fourth rib, a slight depression or concavity exists—from fourth rib to base of chest is a regular convexity: a slight prominence exists in the precordial region, where the heart is in contact with the ribs; the chest is widest, at the lower margin of the seventh rib, the pressure of the clothes slightly contracting it from this to the base.

Laterally—The chest is regularly convex from the axilla to the base.

Posteriorly—The irregularities are so great that they can only be correctly studied upon the subject; the scapula is the most projecting point upon this surface—all the other regions are compressed when compared with this—the inter-scapular most, the infra-scapular next, and the acromial least. During expiration and inspiration the chest dilates and contracts freely—the ribs rising in inspiration and falling in expiration.

Percussion.—The healthy chest when struck, yields a clear resonant sound, in those regions occupied by the lungs. This

resonance is owing to the presence of atmospheric air in the bronchial tubes and air-cells of the lungs.

Clavicular.—The resonance, though perfect in these regions, is not so intense as in the inferior regions for reasons already mentioned.

Infra-clavicular.—Resonant throughout, save at the centre of the inferior portions over the base of the heart, where there is a dull sound on percussion.

Mammary regions.—Intense resonance over the pulmonary structure. But under the sternum, three-fourths of an inch to its right, and extending to the left a little beyond the cartilaginous extremities of ribs, and as low down as the upper margin of 6th rib—the limits of the heart, the sound upon percussion is dull. The heart is partially overlapped by the thin margin of the lungs, and although when forcibly percussed yielding a dull sound, it is not the perfect dullness elicited from that part of the organ in immediate contact with the parietes of the chest.

Infra-mammary regions.—That portion of these regions containing the lower lobes of lungs yields a clear resonant sound on percussion. Over the liver on the right side, the sound is dull, and in the lower part of the left side, there is an irregular dullness depending on the condition of the stomach and spleen.

Laterally.—In the two upper regions the resonance is loud and perfect; in the inferior lateral, clear in the upper portion, dull over the liver, and irregularly dull at the corresponding point upon the left side, as may be the condition of the stomach and spleen.

Posteriorly.—Resonance is not as good at any point as in the anterior and lateral regions, the dense muscles and bones being obstacles to its transmission from the organs of the chest to the ear. Still the same character of sounds is preserved—only diminished in intensity. It is required to percuss with more force in these regions, that the natural sound of the organs may be transmitted through the thick walls of the chest. Percussing lightly, the dull sounds of the bones

and muscles is alone elicited. The lungs being at all points in contact with the posterior walls of the chest, a resonant sound is heard throughout, only modified by the irregularities on its surface.

Auscultation.—An accurate knowledge of the anatomy of the lungs is essential to the student before he is even prepared to enter upon the study of auscultation. Almost the entire bulk of the healthy lungs is formed by air. The bronchial tubes ramify through the lungs, and terminate in expanded pouches or air cells, called vesicles. In the large or primitive bronchi, the cartilaginous rings are dense and very close together—the ligamentous tissue connecting these rings is also dense—but as the tubes ramify they become smaller, and the distance between them increases, until in the minute extremities and cells, the muscular and mucous tissues only remain. The friction of the air against the sides of these tubes in inspiration and expiration, produces certain sounds called the respiratory sounds. The sound produced in the larger bronchi, composed of dense cartilage, ligament, &c., differs from that found in the extremities and cells composed only of mucous and muscular tissue. This has given rise to a division of the respiratory sounds into the bronchial, or blowing sound, and the vesicular sound. The first being produced in the large tubes, while the last is produced in the minute extremities, and as its name implies in the vesicles of the lungs. During inspiration both these sounds are heard, the external pressure forcing the air with great suddenness into the extreme cells. In expiration only the blowing sound is heard—the air being forced out of the vesicles so slowly by their gradual contraction, that the friction is not sufficient to produce any appreciable sound. The bronchial or blowing sound of inspiration resembles somewhat that made by contracting the mouth and inhaling air with some little force; it is heard most distinctly about the middle of either interscapular region, or anteriorly, about the lower part of the centre of the infra-clavicular region. The vesicular sound has been compared to the gentle murmur of a distant breeze

—hence it is frequently called vesicular murmur. This is heard at every point of a healthy chest, but most distinctly in the anterior lower and lateral regions. The presence of this sound is conclusive as to the healthy condition of the substance of the lungs. The blowing sound of expiration is a shorter, more abrupt, and feebler sound than that of inspiration; in many healthy subjects when breathing naturally and easily this sound is not heard at all. But in others it is heard with great distinctness, and in the first class it can easily be heard by slightly accelerating the respiration.

As above mentioned, the presence of the vesicular murmur indicates unerringly a healthy condition of the parenchyma of the lung, while the bronchial or blowing sound is altered in character or intensity, by the slightest disease of the larger tubes. The healthy respiratory sounds differ in different ages —thus in infancy it is so much shriller and louder as to have obtained a distinct appellation, peurile respiration; and this variety occurring in an adult is an evidence of disease—so that what is a physiological condition at one age, becomes a pathological condition at another. When an individual whose lungs are healthy speaks, the voice is heard with some distinctness over the large bronchi, and a diffused roaring over the vesicular portion of the chest. The presence of these different sounds, as they have been described, is the evidence upon auscultation of a healthy condition of the contents of the different regions. The heart I do not now mention, as it will be the subject of distinct consideration hereafter.

ART. II.—*Remarks on the Importance of Good Health in Ministers of the Gospel, and on the best means of attaining it.* By WILLIAM M. BOLING, M.D., of Montgomery, Ala.

With all classes of men, in whatever pursuit engaged, whatever their calling, or whatever the duties devolving on them through life to perform, that these duties should be well

and efficiently performed, the possession of good health on their part would seem to be almost absolutely necessary. Not that a man of superior ability or skill in his pursuit, may not, with but a very moderate degree of health, as effectually perform the duties of his station, as could one of but ordinary capacity, in the enjoyment of the most excellent health, and therefore, it may be said, perform them efficiently, but make the bodily health of the two equal, and the result will be different. Is it not reasonable to suppose that he, who while afflicted with bodily infirmities, performs his task as well as another in health, would be capable, his infirmities removed, to perform it better? If the steward with five talents, hides four of them in the ground, is the amount of interest reaped by his Lord greater than that from the servant who has but one? Is the amount of benefit derived from the ministerial functions of a man of the most brilliant intellect, but with that intellect clouded, soured, and overshadowed by bodily suffering, and the sphere of his active usefulness circumscribed by physical imbecility, greater than that derived from the active and healthy exercise of a mind of ordinary capacity and attainments, in the performance of like duties? That superiority of intéllect is not unfrequently found in connection with great bodily infirmity no one will deny, and it would be absurd to argue, that, in the mass, men's intellects were to be judged by their physical powers alone. We would not expect from him whom nature has endowed with but common comprehension, in any state of corporeal health, an "Essay on man," a "Childe Herold," or a "Hamlet," though, should he make the attempt, we would expect him more nearly to attain success, than if, over the small amount of intellect, by nature allotted, disease and physical suffering were to throw their beclouding veil—that, cæteris paribus—the man in health, would always more efficiently accomplish his object, or peform his task, than one in a different state.

It is a fact of almost daily observence, that the manifestation of superior mental abilities is not incompatible with much physical weakness and with a greatly impaired state of bod-

ily health, and hence it has been argued by some, that these conditions were favorable to the full development of the mental faculties. In favor of this argument, many bright examples are adduced from authors on all subjects—but principally from among the poets—and on the list, Pope and Byron are conspicuous. Of the former it may be conceded, that originally his constitution was feeble, and that his mind was of a superior order, but does this prove, that with good bodily health he would not have thought as well, or better? But it may be even questioned, if to this originally feeble constitution, his sedentary habits, the necessary consequence of his pursuit in life, did not add their enervating influence, and thus, that still further impaired health, which was in reality an indirect consequence of his genius, receive the credit of being measurably its cause? In many things, the proper connection of cause and effect is frequently reversed.

Of the latter, instead of being originally of a delicate constitution, it may be affirmed, on the contrary, if we may judge by what he himself says of his ability to undergo bodily fatigue, that he possessed one of the strongest; and though in person not large, he must have been unusually active and athletic. True, in after years, the consequence of every species of irregularity, of successive days of abstinence, preparatory to others of repletion, and perhaps a too free indulgence in wine and other intoxicating drinks, the profuse use of tobacco, and then again an injudicious system of medication for the purpose of relieving promptly, though temporarily, the system from the effects of these excesses, his health did become impaired, and under this state of impaired health he continued to write well,—better than in earlier life, when in better health. But does this prove any thing? Is it strange that the matured intellect of the man should think more strongly, or more correctly, than that of the Harrow school-boy? Is it strange that the boy should not give utterance to passions, pangs and disappointments felt only by the man? Should not clothe with language, wrongs and injuries, real or imaginary, endured only by him? Should not de-

scribe, with graphic accuracy, with poetic fire, scenes which he had not witnessed, dramas in which he had played no part? And here again, may we not say, that that genius and poetic fervor which prompted him to write, and to the neglect of the proper amount and regularity of exercise, necessary to the healthy performance of the bodily functions, were in part the cause of that impaired health, of which they have been supposed the consequence.

A word or two of Burns. Through some most excellent pieces by this author, there seems a strain of melancholy despondency, and of hopeless, cheerless gloom, the conception of a mind on which physical suffering had stamped its impress. In others, there is apparent a tincture of spite, of discontent and peevish sarcasm, the effusions of a mind 'sicklied o'er' by the perverting power of the demon dyspepsia. But, as works of genius, though much admired, are the 'Ode to Despondency,' 'Man was made to mourn,' and others of that character; and 'Holy Willie's Prayer,' and others of the same stamp, superior—are they equal, to that beautiful poem, pervaded by feeling of continued happiness, of religious satisfaction, the evidences of at least temporary bodily health, and of a mind at ease, unbiased by sympathy with corporeal suffering—'The Cotter's Saturday night?'

The performance of 'high and noble deeds,' the achievement of great victories, and the accomplishment of mighty revolutions, have often, it is said, been the work of men of feeble and sickly frames. But is this true? Does the diminutive statue of Alexander necessarily imply a sickly constitution; or must the bodily deformity of Gloucester, admitting it to be a historical fact, of which, however, there seems to be some doubt, be necessarily associated in our minds with bodily suffering and infirmity? But admitting these, and a few others, for the sake of argument, to be examples of what they are arrayed to prove, does it follow that the same spirits might not have accomplished as much, in some instances more, if associated with better bodily health; or that the sickly and infirm tenements, added fire and energy to the

workings of the mind? Are they not indeed a few exceptions brought hastily forward to constitute a rule?

Although it has occasionally happened, that persons, apparently of delicate constitutions, and who have suffered much from bad health, have attained to good old ages—it is nevertheless a fact, as a general rule, that the vigorous frame outwears the more delicate machine, and the number of years attained, may be taken as a measure of the original strength of constitution, and the amount of tax imposed upon it by disease. This being admitted, if it should appear as a general rule, that those persons who have given evidence of superior mental endowments, have been long lived; it goes far to prove the importance of good bodily health to vigorous intellectual exertion. In any calculations of this nature, it would be proper to make allowances for early deaths, from acute diseases, in consequence of exposure necessarily attendant upon any particular pursuit; and for violent deaths upon the field of battle, and from other causes. It is evident, that among literary characters, such accidents are of less frequent occurrence than among most others, and least of all among females—among them then, would it be proper to look for evidence in such an investigation. The following list, comprising the principal female authors of distinction of the last century, which I find in an old number of the Quarterly Review, shews that these distinguished ladies lived considerably beyond the average duration of human life. Thus:

Lady Russell died at the age of 87, Mrs. Rowe at 63, Lady M. W. Montague 73, Mrs. Centliver 44, Lady Harvey 70, Lady Suffolk 79, Mrs. Sheridan 47, Mrs. Cowley 66, Mrs. McCauley 53, Mrs. Montague 81, Mrs. Chapone 75, Mrs. Lennox 84, Mrs. Trimmer 69, Mrs. Radcliffe 60, Mrs. Barbauld 63, Mrs. Delany 93, Mrs. Inchbald 68, Mrs. Piozzi 80, Mrs. Hannah More 88, Mrs. Hamilton 65.

In these few remarks, if I have rendered apparent, I will not say proved, that for man to perform his allotted duty here to the extent of which his mind may be capable, the possession of good bodily health is essential; and that by it power,

clearness, and determination are added to his mental manifestations, the sphere of his usefulness thereby augmented, it is palpably apparent that the relative importance to the world in general of the good health of any particular class of men depends upon the usefulness of that class to their fellow-men, the effect the efficient performance of their part may have for the good, the effect its malperformance may have in the injury of mankind, may add to or detract from the happiness and comfort of man here, or may well, or ill prepare him for that "bourne whence no traveler returns."

The importance of good health in Ministers of the Gospel.—That which is so self-evident, needs little argument in its support. The paramount importance of their ministerial admonitions, instruction, advice and example, to the comfort, dignity, and well being of man here, and to his happiness hereafter, must be admitted by all who think, observe, or reason on the subject. In so far as man's future destiny should take precedence of all other considerations, just so far is it important above all other classes of men, that the individuals recognised in all countries, and in almost every age as the agents, to warn, prepare, and guide—to direct men's steps along the narrow path to peace; to teach them to avoid the shoals and quicksands on which their future weal may be wrecked, should have few physical ills of their own to occupy their thoughts—to mar the healthful workings of their minds, or to constrain or circumscribe their field of labor.

In times of pestilence, to whom with anxious eye does the dying man look for comfort, for a gleam of hope, sure that though all others fly him, he will not be wanting? Side by side with the physician, is seen the pious and benevolent clergyman, visiting the abode, where death stares him in the face, seeking to supply consolation in that trying hour. In the performance of these voluntary acts of benevolence and christian kindness, how much more efficient the vigorous, healthy man, than another less fortunately constituted.

One of the most important conceptions for the improvement of the moral and physical condition of man—one which has

been the means of rescuing thousands from, of preventing millions from falling into a state of physical wretchedness and misery, and of moral degradation below even that of the brute—the Temperance cause; has it not mainly been carried out by the exertions of the clergy? Witness the benevolent exertions of Father Mathew in Ireland. It is true no one individual in this country has effected so much. The cause is obvious. There, he had the whole field to himself—here, thousands of willing hands have been extended to its cultivation.

That man should think charitably of, and act kindly towards his fellow man, that he should be lenient to another's faults, and ready to accord him all he merits—it is essential that the better feelings of his nature should be unmarred, his sense of right and charity, and all his kindlier sympathies unperverted by the blasting influence of bodily suffering over mental health. If this be true with regard to the mass, how much more important is it that they who should stand as 'bright examples,' whose conduct is looked to closely, whose thoughts and actions are severely scrutinized, and each of whom gives a bent, for much or little good, in proportion as he bears the test, in the immediate circle in which he moves, and of whom any gross error, throws scandal and disgrace upon his Maker's cause, far beyond it—should be at peace with all the world—should think and speak with charity of all! I once heard a talented but somewhat eccentric professor, in addressing his class, express himself in this emphatic manner, when speaking of a certain article of the Materia Medica, the power of which, in correcting derangements of the abdominal viscera, and alleviating dyspeptic affections, he was extolling. "If you wish to rid a man of melancholy thoughts, or of suicidal feelings, to remove from his breast envy, hatred, malice, and all uncharitableness, you must give him that article." This was but another way of telling us to cure the man's dyspepsia; the article alluded to being, in his estimation, the most efficient agent. There was much truth in the remark.

In discussing the important subject, of the best means of preserving the health of Ministers of the Gospel, I shall confine my attention to those diseases to which clergymen are especially liable. They are two in number—one of them, a form of laryngitis known commonly by the name of 'the clergyman's sore throat,' 'bronchitis,' &c., being but little known out of the ranks of their profession; the other, dyspepsia, shared by them in common with the members of the other learned professions, and with literary and sedentary men generally. This, I presume, is all that is expected. To advance beyond this, one could not well stop short of a complete treatise on hygiene; and if there is any other disease to which Ministers of the Gospel are peculiarly liable, or not shared by them in common with the whole human family, my memory does not now recall it; consequently, for their protection against all other diseases, the ordinary rules of hygiene are available.

First, of Laryngitis—*the laryngitis of clergymen.* It seems to be the impression of some that this disease is equally common among all classes of public speakers. I have rarely seen it except in Ministers of the Gospel. Were public speaking the whole cause, of course it would be equally common with all public speakers, in proportion to their exertions in that way. This, however, probably only predisposes, another element being necessary for its development.

To understand the nature of any disease sufficiently well to treat it philosophically, or to lay down any rational prophylactic rules, it is important that the causes leading to that disease, and the pathological change constituting it, should be understood. There are three causes which I suppose to have a paramount influence in the production of this disease: First. The overexertion or straining of the vocal organs in the effort of clergymen, in some instances, to make themselves distinctly audible to the most remote member, in others, the same straining of the voice beyond what is necessary—a vociferous energy with which they manifest their zeal for the cause in which they are engaged, apparently at the time forgetful of all else.

Another cause is, the sudden vicissitudes of temperature to which the clergyman is exposed, in passing in the winter season from the heated atmosphere of his study into the open air, thus in a few seconds breathing atmospheres differing many degrees in temperature. This, however, would not be so hurtful, were it not for the fact that the constant confinement to his room, which the nature of his studies, and his routine habits of life, to an extent require and encourage, renders him much more susceptible to injurious impressions from these vicissitudes. The unnecessarily high degree, too, to which many of them keep their rooms heated, the closeness of the apartments, and the injudicious care with which anything like free ventilation is guarded against for the purpose of preserving this high temperature, by which an excited state of the cutaneous exhalents is induced, still more strongly predisposes the system to be injuriously impressed by the sudden application of cold; from which result immediate suppression of perspiration and its consequent evils.

A third cause, composed of the two preceding, which it is probable has the principal agency in the production of this affection, and which so frequently directs the morbific effects of cold upon this part of the vocal apparatus, is the passing from heated churches after preaching, into the cold atmosphere, while the larynx itself and the neighboring parts are in—if the expression is not a solecism—a state of fatigued excitement and congestion, thus exposing them to a sudden change of temperature at a time when they are less able to resist its action. It is this state of fatigued excitement, I say, of the vocal apparatus, that gives a peculiar feature and location to the morbid actions excited by sudden vicissitudes of temperature. This view of the matter is supported, I think, by the fact that the upper part of the pharynx, the tonsils and palate, and all the parts immediately connected with the larynx, and which more or less partake of the actions going on in it, are almost equally with it exposed to sudden changes of temperature under the circumstances alluded

to, will also be found to partake with it of the diseased actions induced by these causes. It may be said that the functions of the parts named, are so different from those of the larynx, that however intimately connected by location, they could hardly participate in the movements necessary to produce fatigue, determination to, or excitement in it. To this I could only answer, that the redness and engorgement of subacute or chronic inflammation, are always, so far as my observation extends, to be found in these parts when the disease in question is present in the larynx; and that in all cases where fatigue is at all experienced after declamation, these parts participate in the sensation.

Among that class of clergymen belonging to the Methodist church, denominated 'circuit riders,' whose duties are such as to require them to be much in the open air, in their visits to meet their different and distant appointments, if I am not mistaken, the disease in question is very rarely known. This is the case, at least so far as my own observation extends, and if it should be found to be a fact of general occurrence it goes far to support the view here advanced of the origin of the disease. To the exciting causes of the phlegmasiæ in general, the gentlemen in question are more exposed than other clergymen, and are probably with equal frequency the subjects of them; but spending much of their time in the open air, seldom being able to have their temporary apartments so highly heated, and the fresh air so completely excluded, as from the comfortable apartments of their stationary compeers, their systems are less predisposed to unfavorable impressions from the ordinary exciting causes of disease. But that which above every thing else renders them less liable to this disease, is that they seldom preach in churches in which the air is kept at a high temperature; it being a fact of general observation, that the country churches, or meeting-houses, in which the labors of these gentlemen are principally performed, are less carefully heated than those of the larger towns and cities. This being the case, on passing from the church, while the vocal organs are fatigued, and therefore

predisposed to disease, they enter into an atmosphere at a temperature to which they are accustomed, and but a few degrees below that of the church in which they have been. Here then is a difference between stationary clergymen of the cities and larger towns, among whom laryngitis is common, and their compeers of the circuit, among whom it is almost unknown. The former after preaching pass from a high temperature into a much lower one, to which they are but little accustomed; the latter from a less heated atmosphere into one to which they are habituated. The same difference to a greater or less extent, obtains between the stationary clergyman and almost all other public speakers.

The causes then which peculiarly favor the development of laryngitis in clergymen, are, 1st, overexertion of the vocal organs; 2d, the vicissitudes necessarily incurred, and the predisposition induced by much confinement to highly heated apartments; and 3d, the sudden exposure of the larynx to the passage of air many degrees of temperture below that just immediately before respired, at a time when the previous exhaustion of the organ has rendered it less capable of resistance.

It is a subject of daily observation, that many clergymen, in their zealous enthusiasm, fatigue and exert their organs of voice to a point far beyond what is necessary to render their discourse distinctly audible to the persons in the church the most remote from their position. As to whether a discourse delivered in so high a tone, and with the degree of physical exertion generally accompanying it, may be more effectual than one otherwise delivered, it is not my present duty to give an opinion—but this I may observe, without wandering far from my subject, that the low, sweet, persuasive tones of some to whom I have listened, have seemed much more impressive. At all events, this laborious exertion of the voice is one of the most active causes of the disease of which I am treating; and as such, should as much as possible be guarded against by any one at all predisposed to laryn-

geal disease. To one who wished to make this effort, a friend seated near, say in the pulpit, by his side, would be useful by giving intimation when he was exceeding the proper tone. This would be found still more the case, if the elevation of his voice were the consequence of that forgetfulness of everything else—even of ones own personal good, to which many are liable when deeply interested with their subject. It cannot be doubted that a little restraint exerted in this way would have a salutary influence. In many instances too, this loud speaking depends upon a habit, imperceptibly and unintentionally fallen into. The same plan, aided by some exertion of will on the part of the subject of the habit, will be the most convenient means of correcting it. A little more attention to the principles of acoustics, in the construction of our churches, too, would have a beneficial influence, by rendering a high tone of voice less necessary. Do not the heavy cushions and rich carpeting of our city churches, increase the amount of exertion necessary on the part of the minister, by absorbing a portion of the sonorous vibrations? The adaptation of the size of the church to the voice and physical ability of the preacher of course cannot be always effected—nevertheless, as far as possible it should be attended to. It would be grossly violating the rules of clinical hygiene, if I may be allowed to coin an expression, to place a man of delicate frame and feeble voice, where his ministerial duties would have to be performed in a room, so large as to render great exertion on his part necessary to make himself heard in the remote seats; and to place another of herculean proportions and stentorian voice, to preach in a house so small, that his resounding tones would almost deafen his auditors:—and yet this is sometimes done. Churches cannot always be adapted to preachers, nor yet preachers to churches. A word or two on the latter. Any exertion of voice, above what is absolutely necessary for distinct audition, is to many ministers hurtful; and as it is unnecessarily so, should be more carefully guarded against. By attention to the matter, a minister may readily discover the degree of ex-

ertion necessary to render himself distinctly audible in any church, in which he may be called habitually to preach, and by care may, in a very short time, so accustom himself to it, that without effort he will readily and naturally fall into it. To aid in this intention, a friend may be stationed for a few Sabbaths in a distant part of the church, who, by some preconcerted signal might inform him as to whether he rendered himself distinctly audible, or spoke unnecessarily loud. The over fastidiously righteous, but less informed, might cavil at this. But is there any reason why Ministers of the Gospel should not adopt any innocent means for the preservation of their health? On the contrary, it is incumbent on them, above all men to do so. It is their duty to themselves, and to their flocks, which suffer from any incompetency of their pastors, by whatever cause produced.

The mode of removing the second of the causes enumerated above is obvious enough, though perhaps not so easy of accomplishment. In cold weather, the comfort of a warm room is so great, that its privation seems almost too much of a sacrifice to make for the prevention of a remote or possible evil. Much of this, however, depends on habit; and there are very few persons who do not keep their apartments in cold weather, at a temperature many degrees above the lowest point that would be equally agreeable, and much more conducive to health, were they gradually to accustom themselves to a lower temperature. As it is not the high temperature itself of the apartment, so much as the *difference* between this internal atmosphere in which the greater part of their time is spent, and the external atmosphere to which they are occasionally exposed, which proves injurious, the best method to guard against its action, is to keep the apartment habitually occupied, as few degrees above the external temperature as is at all compatible with comfort. This might be effected so gradually, as to render any great sacrifice of present comfort unnecessary, and indeed it is important for the health, as well as for the comfort of the individual making the attempt, that this reduction of the temperature of his

apartment should be gradual. Let those who have been accustomed, then, to overheated apartments pay attention to discover the temperature most congenial to their feelings, and let them daily, or at longer intervals as may best suit, carefully attend to having it reduced a little: and for this purpose, the aid of a thermometer would be almost indispensable. By very gradually diminishing the quantity of fuel consumed, in a short time, without being at all unpleasantly affected by the change, one finds himself equally comfortable in a room, the temperature of which is many degrees below that to which he has been accustomed, and which he thought almost indispensable to his comfort. It is a fact, too, that many persons while engaged in study, frequently, through forgetfulness, or having their minds at the time deeply occupied, allow their apartments to become heated to a degree far above what is comfortable to themselves. This of course is more injurious, and should be particularly guarded against.

On the method of warming the apartment, but little need be said. The stove and the open fire-place, each has its advantages over the other, each its disadvantages. With the stove a more equable temperature of the apartment may be maintained with less trouble—while it has the disadvantage, among others, in a much stronger degree, of dessicating the atmosphere too much for a healthy respirable state. This may be obviated by evaporation from a vessel of water seated on the stove. The inconvenience from the difficulty of keeping up an equable temperature, in an apartment heated by an open fire-place, is perhaps overbalanced by the circulation of the air it induces, and the aid it thus lends to ventilation. This air, however, is not so great, in the usual construction of our fire-places and chimneys, as is usually supposed, as it is the lower cool and less vitiated strata of air to which the heat of the fire gives an upward impulse through the chimney, and not the more rarified strata above. I have somewhere seen it suggested to have an opening from the room, near the ceiling, communicating with the chimney. This would certainly be an advantage. Either for the stove

or open fire-place wood, on several accounts, seems preferable. Its principal advantage, however, is probably owing to the smaller quantity of dust, or ashes produced from it, of sufficient levity to prove troublesome, by floating in the atmosphere. This is again measureably counterbalanced, by the less attention which a coal fire requires for keeping up a regular temperature. Upon the whole, the advantages of the stove and open fire-place, and of wood and coal, as fuel, are more equally balanced than persons exclusively accustomed to either will be brought readily to admit.

While this strict attention is paid to the temperature, equal attention is also required to the ventilation of the apartment. One thing should be carefully guarded against, in any process that may be adopted for the purpose; that is, that no current of air be allowed to blow directly on the occupant; and more especially on a limited part of the body. A double advantage arising from a lower degree of temperature of the apartment habitually occupied is, that it admits with less inconvenience of a more perfect ventilation. This is a matter of considerable importance, and is too much neglected. To admit a necessary supply of fresh air into a small apartment for its effectual ventilation, and with the least danger and inconvenience, the upper sashes of the windows should be so constructed, that by means of weights and pulleys they may be lowered or elevated at pleasure.. The upper sashes of two windows, one on each of two opposite sides of the room may be lowered a few inches, more or less, according to the existing temperature of the room, and the sensations of the occupant. The elevated position of the opening for ventilation has the advatage of preventing anything like a direct current of air from blowing on the occupant. While by its greater condensation and specific gravity, a portion of the newly admitted air gravitates to the lower part of the room, displacing and pressing upwards the heated and contaminated strata. Another portion, may, when any current exists, be supposed, by the impetus it has received from without, to preserve its direct course, carrying out with it, that which has

been displaced from below. When no current of force exists, there is merely a gradual admission of fresh air from each window, by which an equivalent portion of the strata below is as gradually displaced. To prevent any injurious effect from obliquely downward currents of air, which entering from above might impinge directly on the occupant of the room, a piece of board, a few inches broad, extending from one side of the window to the other, might be so attached to the upper part of the sash, with its inner edge obliquely upwards, as to give to the entering current, that direction. A still more efficient ventilation may be secured by having the opening for the admission of fresh air near the floor, and that for the exit of the vitiated air near the ceiling. By this means the fresh air on entering occupies its natural position, without having to gravitate through, and consequently become commingled with that which has been already vitiated. As it becomes heated and contaminated, without any opposing obstacle, it more readily takes its natural upward course, to be again succeeded by fresh portions. The openings of course, had better be on opposite sides of the room, that for admission facing the usual current of air. This latter method is attended with the inconvenience, without some care, of permitting currents of air to blow directly upon the occupant. This may be measurably, if not entirely obviated, however, by placing a screen, made so as to present a concavity to the entering current, between the opening and the seat occupied. The admission, however, of a sufficient quantity of fresh air for adequate ventilation is incompatible, at least without much inconvenience, with the high degree of temperature alluded to.

It is true that the habitual occupant of badly ventilated apartments becomes so accustomed to the foul atmosphere, that he suffers much less immediate inconvenience from it than one for the first time entering it, whose sensibility has not been blunted, or whose system not accustomed to it. The prisoner who has for a long time occupied his narrow cell, becomes unconscious of, or ceases to be unpleasantly af-

fected by, the thick noisome atmosphere which at first seemed almost irrespirable, but still its poisonous influence is not the less exerted for being unperceived.

Although at no time should strict attention to ventilation be neglected, it is after meals, when the weather is such as not to admit of out-door exercise, that its importance is most imperative. This arises from the relationship, and to a certain extent, the mutual dependence on each other, of the functions of digestion and respiration, generally admitted by physiologists, but more fully and beautifully explained of late, by Liebig, and others in the same field of research. As for the preservation of a healthy state of the system, a certain relation must exist between the ingesta, or rather the carbon and hydrogen contained in them, and the respired oxygen, it follows that a necessity for an additional or increased supply of the latter will be felt after each meal. Now, as the quantity of oxygen contained in a given volume of atmospheric air increases with the density of the air, and that again with a diminution of its temperature, the volume of air at each inspiration of any one individual, being as a general rule about the same, it follows that a pure and cool atmosphere is at this time especially important. Indeed the natural heat of the body thus generated by a due supply of oxygen for the combustion of the carbon and hydrogen of the food, during and after healthy digestion, will diminish the necessity for artificial heat. A healthy condition of the apparatus of digestion and assimilation, by which the food is more readily reduced to the condition favorable to the combination of certain of its constituents with the oxygen, favors the same end. Nothing improves the appetite so much as exercise in a cool pure atmosphere; nothing so well enables the stomach to digest that which the appetite calls for, as the same. In this the reciprocal action and dependence of the functions of digestion and respiration are exemplified. So beautiful, apparently so philosophical and consistent are the explanations of Liebig, that one almost sighs to think of the possibility of their being su-

perceded by new developments, in the onward march of chemistry and physiology.

In the present day it would almost seem a work of supererogation to multiply examples of the baneful effects of inattention to ventilation—one, however, may be admitted. I take it from a review of the report of the poor law commissioners on an inquiry into the sanitary condition of the laboring population of Great Britain, in the Medico-Chirurgical Review for April, 1843. "A large pauper school attracted great attention, by reason of the great mortality prevailing in it, and which was at once attributed to defective nourishment. On a searching inquiry, however, being instituted, the diet was found to be unusually good, but due ventilation wholly unprovided for. This was remedied, and in the same space where 900 children were by illness awakening extensive sympathy, 1100 now enjoy excellent health."

The remarks relative to the temperature of the study of a clergyman apply with increased force to the church in which he is in the habit of preaching, as it is in the transit from this to the open air, that his health is more in jeopardy, from the above mentioned causes, than from his home apartment. The church, then, should also be kept as little above the external temperature, as is at all consistent with the comfort of the congregation, while equal attention must be paid to its proper ventilation. In churches this can readily be effected without inconvenience or danger, as it may be done during the week or in the intervals between sermons; and unless the temperature is allowed to rise, during preaching, above the proper standard, there will seldom be a necessity for ventilation during this time. Should it, however, become necessary for the safety of the congregation, to admit fresh air during the service, as sometimes will happen with every attention, from the occasionally crowded state of the church, it would have to be accomplished by lowering the top sashes, instead of elevating the lower ones; but in a part of the church so remote, or so situated as to allow no direct current to the pulpit.

To prevent the evil consequences of the vicissitudes necessarily incurred, clergymen would do well to accustom themselves as much to the open air as the nature of their calling will admit. This will place the city clergymen in this respect, to a certain extent, in the position of his co-laborer in the country, where habituation to the free air of heaven, as I have already observed, renders him less liable to laryngitis.

Could any means, convenient and of easy application, be devised by which the change of temperature to which the fauces and larynx are exposed in the state of fatigue and predisposition to disease, in which they are after preaching, might be effected gradually instead of suddenly, it would undoubtedly be found beneficial. To a limited extent this may be accomplished by gargling the throat well with water at a temperature holding a medium between that of the church and the open air. To the water a few drops of tincture of myrrh may be added with good effect. In addition to this, where there is a vestry room, or an apartment of any kind immediately connected with the church, it might be kept at a proper temperature, and occupied for a short time after preaching, before passing into the open air.

The daily habit, which some probably neglect, of bathing the whole neck, the under surface of the lower jaw and throat externally, with cold water, will be found serviceable. To this friction with a coarse napkin may be added.

A cold shower-bath, of the shortest possible duration with the delicate, however, followed by friction with a coarse napkin or flesh brush, to the whole surface of the body, will be found doubly beneficial, in rendering the system less susceptible to the influence of cold; and, in consequence of the close sympathy between the stomach and the skin, by preserving the latter in a healthy state, and by the vigor and tone communicated to the system generally, warding off dyspepsia. The best hour for taking it, is probably in the morning, a short time before breakfast, and in cold weather it should not

be taken without having a warm room to go into immediately after, as mischief would undoubtedly follow, unless immediate reaction succeeded. Those of a delicate constitution not accustomed to it had better commence with the tepid bath, and gradually reduce the temperature, especially if the habit should be first adopted in the winter season.

Much has been said of the advantages derived both by dyspeptics and persons predisposed to pulmonary disease, under which in common parlance is included laryngitis, from the constant wearing of flannel next the skin. They have probably been overrated, I would almost say absurd, when directed to be worn during the heat of summer. An uncomfortable degree of heat in summer is in all probability as prejudicial, as an uncomfortably cold temperature in the winter. But we are sometimes told that flannel is cooler in summer than linen. Is it possible that he who first said it, from whom the dogma has been echoed and repeated by thousands, had the natural healthy sensations? The overexcited state in which the cutaneous vessels is kept by it, when acting in combination with the heat of summer, must certainly predispose to catarrhal and other inflammatory affections, on the setting in of cold weather. A much more judicious course would seem to be, to adapt the clothing and its changes as nearly as possible, to the temperature and changes of the season—flannel for winter—cotton for spring and autumn—and linen for summer. Is it necessary to say here that the flannel should be frequently changed?

Although not required, a word or two on the *treatment* of the disease while in its incipiency may not be deemed inappropriate. For this purpose the external friction, above suggested, will be found beneficial, probably more so, in the early stage at least, than any powerful revulsive, as it may be kept up more permanently, and regulated better; and when combined with the cold bathing it seems to have the effect of giving tone to the neighboring parts, while it allays the irritability of the nerves. I was led first to recommend it for this purpose and thus combined, from witnessing its beneficial in-

fluence in persons liable to frequent attacks of quinsy; and in others habitual sufferers from toothache and other painful neuralgic affections of the face. The use of astringent and slightly stimulating gargles, when used in moderation, will in almost every case be found serviceable. They should be used cool, or cold. For this purpose, a weak solution of alum, say five or ten grains, to the ounce of water, to which may be added a small quantity of tincture of myrrh, will be found as useful as any. But that which above every thing else seems to have the most decided influence in arresting the progress of the disease, is the occasional application to the palate, tonsils, and all that portion of the pharynx of easy access, of a solution of nitrate of silver, say ten grains to the ounce of water. In the more advanced stages, a much stronger solution will be necessary, or perhaps the caustic in substance. As the use of the solid caustic is always attended with some little danger, its application should be entrusted only to the hands of a physician. A solution, however, or rather a paste of a drachm of the caustic to half the quantity of water, may with perfect safety be applied with a small mop, and is probably equally as beneficial as the caustic in substance. It will be seen that I have not spoken of its application to the part principally implicated, and from which the disease has its name. This may be done by the physician, in the manner directed by Trousseau and Belloq in their work on laryngeal phthisis. I cannot but think, however, that the case must be a serious one indeed, that could justify a resort to the application of caustic and astringent solutions and powders to a part, to which the accidental application of a drop of the most bland fluid, causes at times so much inconvenience. I have myself never found it necessary to resort to any application to the glottis or larynx itself—the action of the remedy, applied as directed, seeming by continuous sympathy to extend to, and produce the desired influence on the part. I can, however, conceive it to be more than probable that in cases of ulceration of the larynx, the immediate appli-

cation of the caustic would be absolutely necessary to produce to the full extent its peculiar influence.

So much has been written upon the subject of dyspepsia, so many different "cures" recommended or suggested, so many different opinions advanced, that as proteiform have become the essays upon it, as are the manifestations of the disease itself. I have nothing new to offer on the subject, but will attempt, as briefly as possible, to enumerate the causes which are more especially concerned in its production among clergymen, and to suggest the means of avoiding them.

First. Want of the due amount of exercise, regularly taken, and at proper times. Almost every man whose calling is such as to require sedentary habits, neglects to take the amount of exercise necessary for the perfect preservation of his health, and thus, by the dullness of intellect, and the incapacity for mental exertion brought on in this way, loses more time than would have been necessary to preserve his health if spent judiciously in exercise. One hour of mental labor, when the mind unembarrassed by disease and uncomfortable bodily sensations concentrates itself wholly upon its subject, being more productive, than twice the time spent in efforts to direct attention to a topic under considertion, while obscured by the clouds arising from an undigested meal, and distracted by headache, and the other attendant evils of dyspepsia. To the proper amount of exercise, then, taken at appropriate times, I would direct attention, as a matter of the first importance. As to the kind of exercise, there is none so beneficial as walking. I may modify this remark, however, so far as to state, that when any laryngeal inflammation already exists, equestrian exercise will be found preferable, or at least a principal portion, the most active part, should be of this kind.

I will suggest the exercise for a day, such as I suppose may be most generally applicable, liable of course to variations and modifications, to suit the different powers and capacities of different persons. Early rising and exercise before breakfast have been much lauded, by those perhaps who have

not made the trial, and the system looks very well on the pages of a romance. To the first, of course there can be no objection, nor to the latter, but not carried to the extent generally recommended. Breakfast should be taken very soon after rising. A short walk, before breakfast, in the open air, not carried so far as to produce heat, or but the slightest degree of fatigue, is as much as would be proper. After breakfast, from an hour to an hour and a half may be spent in a walk in the open air, or some easy labor, such as working in the garden. The exertion should not be such as to produce much fatigue, especially during the earlier part of the allotted time. From this till within half an hour of dinner, the time may be spent in reading or in composition; the half hour immediately preceding dinner, in a gallop on horseback, or in some other appropriate exercise, but if carried far enough to produce fatigue, a period of rest should intervene before dinner. As dinner is probably the meal most productive of dyspepsia, the period of its digestion is the one to which attention should especially be directed. In this respect there is considerable diversity of opinion among authors, some, a few, recomending during its digestion, active, perhaps, laborious exercise; some a state of perfect quiescence, and others a medium course. The latter in the greater number of cases will be found most beneficial. The first hour after dinner should be spent in gently promenading the room, in bad weather; or, in more favorable weather, walking at an easy pace in the open air. After this, the amount of exertion may be increased, and after the process of digestion may be supposed to be nearly complete, say in two or two and a half hours, the degree of exertion may be still further augmented, and if exercise carried to fatigue is at all beneficial, now is the appropriate time. After an hour's active exercise, followed by half an hour's rest in the recumbent posture, for above all things, men who study or write should reserve the sitting posture for these purposes, the labors of the day may be resumed. To his out-door exercise, as constituting an agreeable and

useful employment for the mind, it being also calculated to remove any impression of time wasted, attention may be paid to botany, gardening, horticulture, &c. Half an hour or an hour should be spent in exercise before tea, and it would be well to spend the same time in a gentle promenade after tea, before resuming the pen or book. The night should not be so far infringed upon, as not to allow of sufficient time for repose; and again an hour's exercise, within doors, or in the open air, asthe weather may or may not favor the latter, before retiring. My recollection at this time presents before me the cheerful and enlivened faces of two clergymen, one of the Presbyterian, the other of the Episcopal church, who in the opinion of some almost outrage the gravity of their order by the rapidity of their pedestrian movements. The effect is manifested, though neither is of a robust constitution, by the ruddy glow, and sparkling eye of health, with which their countenances are animated.

Another fruitful cause of indigestion is the constrained position, unavoidable to a certain extent, which persons assume while engaged in study or composition. The bent-forward position, into which almost every person unconsciously falls while writing, in which the chest and diaphragm press heavily upon the abdomen, constraining and embarrassing the stomach in its gentle motions during digestion; and the impediment thus produced to the free passage of the chyme through the pylours from the stomach into the duodenum, the same pressure upon the bloodvessels contained in the abdomen, more especially the vena cava, preventing the easy return of the blood to the heart, and thus producing a state of engorgement of the abdominal viscera generally, must have a powerful agency in the production of indigestion. This may be avoided to a certain extent, by an individual engaged in study accustoming himself to read in the erect position, at the same time gently pacing his apartment. The mind might not at first be so easily concentrated, but custom would soon obviate this. Besides, almost every literary man, clergymen perhaps among the rest, do a certain amount of reading which

does not require great exertion of intellect. This portion of their reading only might first be performed in this manner. Much of one's writing might also be accomplished in the erect position, as is the case with most of the book-keepers and clerks, in mercantile establishments; and if at first, any difficulty should be experienced in directing attention to the subject, only the less intellectual parts, such as copying, might be performed in this way. By some attention to the above suggestions, less necessity will be felt, and less time required for exercise in the open air.

The subject of diet next engages attention. Here I shall be brief, for were I to attempt to set down all that might be considered important relative to it, it would swell the present article, to perhaps an unreadable extent, and consequently frustrate the object of my labor. Without, therfore, entering to any extent into theoretical discussions relative to the materia alimentaria, I shall merely suggest a few simple rules, or rather hint at a few points, attention to which appears to me of most importance. Of these, moderation in eating stands pre-eminent. By this I do not mean starvation, or something bordering upon it, as some who carry everything to excess, would construe the caution, but a due supply of wholesome nutriment. To insure the proper quantity, and no more, being taken, a longer time than is usual in this country should be spent at the table, to give the *stomach an opportunity of appreciating the ingesta*, and to admit of slow and effectual mastication. Though I cannot fall into the opinion of those who advise that the meal should be discontinued while a sensation of hunger is still felt, yet, anything like a feeling of repletion or satiety, should be avoided. Large quantities of fluids during the meal, and after, until the process of digestion is complete, should be avoided, as tending to distend the stomach beyond the point at which it grasps, and most effectually contracts upon the alimentary mass, and also as tending to dilute the gastric juice, so that its solvent properties are but inefficiently excited. For the latter reason, also, they should not be taken freely immedi-

ately before eating. Or should we adopt the theory of Liebig and others, that the process of digestion is one of transformation of the food, a new arrangement of its particles in consequence of contact with other particles undergoing at the same time the same transformation, as in the process of fermentation; these other particles, which are supposed to communicate the impulse in this transformation to the alimentary mass, being contained in that fluid called the gastric juice, its dilution may be equally supposed to affect their power. The fact, however, is unalterable, though theories or explanations may change.

As for the much abused tea and coffee, a *good* cup of either, may be innocently, if not benefically, indulged in at supper or breakfast—the injury, if any, arising from the use of these articles, being from the excessive quantity of the *menstruum*, and not from the ingredient, acting as above suggested in too much diluting the gastric juice. It is at dinner, as being the principal meal, and the one generally of most difficult digestion, that a free indulgence in fluids should be avoided. It is true, that the '*bon vivant*' indulges freely in fluids during and after dinner, but still they are more stimulating in quality, than excessive in quantity, and are at the time no doubt useful, from their stimulating properties, in enabling the stomach to master the unnatural load with which it is overburthened. This organ, however, seldom fails in the end to be avenged upon the system generally, for any bad treatment imposed upon it by the palate.

Although the proteinaceous compounds, albumen, casein and fibrine, constituting the elements of nutrition for the body, are identically the same in vegetables and animals, those of the latter indeed seeming only to be derived from the former; still experience proves, that a mixture of animal and vegetable food is better for the preservation of health, than the exclusive use of either one or the other alone; the form and combination, and the degree of concentration or dilution of our articles of diet, probably modifying their amenability to the action of the stomach. Indeed, as a general rule, it is

a fact, that the very elements of nutrition themselves, in a state of concentration separately, are very unfavorable to the support of animal life; and Magendie mentions the fact of animals dying of inanition in two months, though consuming daily from one to about to about two and a half pounds of fibrine. Of albumen alone, "after a few day's use of it, they refuse to take it, preferring to suffer the most violent pangs of hunger, rather than eat it, and ultimately they die of inanition."

The state of combination of the elements of nutrition, as found in some animal substances, as in beef, mutton, &c., seems in many instances to be most agreeable to the stomach of the dyspeptic. A quantity of vegetable food is important however, probably, for the supply of another proteinacious principle, gluten, very nutritious, and capable by itself, for a long time, of supporting animal life, and for a supply of a sufficient quantity of the non-nitrogenized components of our food, '*the elements of respiration.*'

A due mixture of animal and vegetable food, then, is important: to which should be added at times, a share of good ripe fruit, for reasons hereafter to be mentioned; those of easy digestion, however, being carefully selected, while the cores, skins, seed, &c., are to be rejected. It is a common but mistaken opinion, that these parts render fruits more easy of digestion, and I was once asked, why nature so produced them if not to be eaten. As well might it be asked why nature produced the oyster with a shell, if it was not intended that it should be thus eaten. Like the pickles, the condiments, and stimulating drinks of the epicure, although they can hardly be said to render the substances themselves more digestible, by their irritant qualities they may excite the stomach temporarily, so as to enable it to digest in undue proportion. It is a morbid excitement, however, and never fails when carried far to be followed by a proportionate state of languor, or debility of the organ. As regards condiments, their use should be, as a general rule, as much as is consistent with a palatable state of the food, avoided. Persons

of a robust, plethoric habit, or sanguine temperament, need them not, and to those of a nervous or bilious temperament they are frequently injurious, by exciting the appetite to an improper indulgence, and producing in the stomach itself a state of inflammation, or one of irritation bordering upon it. If to any a free use of condiments is beneficial, it is to those of a leucophlegmatic habit of body. With them, the tone of the stomach is generally weak, while stimulants of the kind are less liable to irritate or inflame. But in regard to diet, no fixed and invariable rules can be established, for as long as there are differences in the physical proportions, in the temperaments, constitutions, and habits of men—so long must there be a certain degree of latitude allowed in dietetic regulations. Each man must be governed to a certain extent, in his own case, by his own experience. This to men of judgment and observation may safely be entrusted. The stomach very soon gives intimation of bad or oppressive treatment, and if its first warnings are carefully heeded much future suffering may be avoided.

A constipated state of the bowels, in sedentary men, is one of the first evils to which their habits of life expose them. It is one of the first accompaniments of dyspepsia, and in all cases has a tendency to aggravate it. For its cure, or prevention, a regular system of exercise is above all things important. While allowing due attention to the first calls of nature, a certain degree of regularity in the periods may be established. This is principally beneficial as having a tendency to direct attention to the matter, and therefore prevent neglect. In many things, we are the 'creatures of habit.' This is not only the case in our voluntary acts, but in the series of organic changes, and instinctive movements, over which *will* has at most but an indirect and imperfect control. For the preservation of the bowels in a soluble state, a moderate indulgence in fruits has a favorable influence: their acid and saccharine juices acting as a mild, pleasant, and natural laxative, while the irritation produced by purgatives is avoided. They should be used, however, with the restrictions

above suggested. The most digestible, and therefore the most suitable, are probably the apple and peach. There are some fruits very indigestible; the pine-apple is peculiarly so. It may be allowed, however, with the precaution of swallowing only the juice, and rejecting the substance of the fruit.

Shall I touch upon the use of medicine in incipient constipation? It should be as much as possible avoided—by every other means striving to keep an open state of the bowels before resorting to this. The use of purgatives once commenced, is very apt to become habitual, the torpor and inactivity following the excitement and irritation produced by one dose, almost always requiring another, and in augmented proportions. If medicine is at all resorted to, the smallest possible dose, capable of rousing the action of the intestinal canal, should be taken. For this purpose, a pill containing from one to three grains of aloes, half a grain of blue mass, and a grain and a half of extract of hyoscyamus, answers the purpose well. Unirritating lavements, however, may in many instances be substituted for even the mildest laxatives, without the risk attendant upon the latter, of rendering permanent by their use, any temporary derangement or irritation of the stomach, or constipation of the bowels, which may seem to call for them.

Will I be accused of a disposition to favor too much the medical profession by recommending persons laboring under a torpid or inactive state of the abdominal viscera, first to consult one of its members before resorting to the use of any 'specific,' or 'cure,' however highly recommended? In the present instance, I shall certainly avoid this, as my advice is to a class, to whom our services are willingly rendered gratuitously. The habit too frequently followed, so soon as the bowels become a little costive, of swallowing in quick succession, 'specifics,' 'bitters,' 'tonics,' 'cures,' &c., cannot be too much condemned; and yet thousands of cases of inveterate constipation and dyspepsia are thus induced. Is it not a fact

that clergymen have a peculiar *penchant* this way? These gentlemen I know will pardon me if I wrong them, as it is for their especial benefit that I write, but from the number of advertisements of *specific cures*, with which almost every newspaper groans, the efficacy of which is *certified by them*, it would seem so, for certainly their certificates are not procured without trials of the remedies.

All authors who have written on the influence of the *physique* upon the *morale*, have dwelt strongly upon the power exerted by the digestive apparatus over the mental manifestations. The importance of a healthy state of the stomach, for the due exercise of the mind, is second only to that of the brain itself: no other part of the body seeming to have anything like so intimate a sympathy with the organ of the mind as this. How important then, that an organ exerting so decided an influence over the productions of the mind, should not be abused:—an organ whose healthy or diseased condition gives buoyancy, energy, and determination; or gloom, melancholy, irresolution, and imbecility to the mental phenomena, as the case may be; one whose diseased condition may be productive of every degree of depravation of intellect, from the slightest lowness of spirits, to the most violent insanity; one whose cravings under the influence of want or starvation, induces a state of the affective faculties in which man forgets his humanity, and levels himself with the beast of prey; in which ties the nearest and most binding are severed; in which love, friendship, and relationship are set at naught; in which the most violent antipathies of civilized man are overcome, and cannibal like he takes the life of his fellow in misery, to feed upon the quivering flesh of him who but a short time before was his companion, messmate, or brother; in which self-preservation, that most selfish of all man's instinctive feelings, becomes his only rule of action; nay, in which his own flesh is not secure, but in his savage and reckless desperation, is torn and mangled by his own reeking jaws. One tie alone, the tie that binds the mother

to her infant offspring, has been known to withstand the cravings of famishing despair, alone amidst this exhibition of the savage brutality of man's nature, has stood as a redeeming trait. Her heart *alone* has been forgetful of all selfish cares; she has been known, when starvation has arrived at that point, against which her physical frame could no longer bear up, calmly to sink into the arms of the grim messenger, careful of, and to her infant offspring, supplying even in death, "nature's pabulum, from nature's fount."

REVIEWS.

ART. III.—*Remarks on the influence of Mental Cultivation and Mental Excitement upon Health.* By AMARIAH BRIGHAM, M.D., Superintendent and Physician of the State Lunatic Asylum, Utica, N. Y. Third Edition. Philadelphia: Lea & Blanchard. 1845. 12mo. pp. 204.

Although Dr. Brigham's work has reached its third edition, and has been republished in Glasgow, Edinburgh, and London, we are not aware that it has ever been presented in a formal manner to the readers of the Journal. As it is intended for general circulation, addressing itself more particularly, however, to parents and to those having charge of the education of children, it of course contains many things which are both common and familiar to the profession, but which, we may be allowed to say, cannot become either too common or too familiar. All of our medical readers may not be interested in it as *parents;* but still, as guardians of the public well-being, as men whose duty and province it is to look after the health, not of the body politic, but the body social, they are or should be interested in it. The views which the book contains are so just and important, and seem to us to have so close a relation both to the duty and business of professional men, that we think it well worth the labor of making a few extracts.

The edition published in Glasgow was edited by Dr. Macnish, who added a preface and some notes; these are incor-

porated in the present edition, together with the preface of the Edinburgh editor.

We shall pass by the first section, which is wholly occupied with the proposition that the brain is the material organ of the mind. This is a truth which at this day few competent to decide will deny, and one at least which most medical men will admit. The second section refers to the condition of the brain in early life, the effect on the mind of its excitement and enlargement by disease, and to the fact that mental precocity is usually a symptom of disease.

"The brain of a new-born infant weighs about ten ounces; that of an adult, generally, three pounds and a half, apothecaries' weight, frequently a little less. But if the mind of an adult has been long devoted to thought, if he has been engaged in constant study, his brain is usually increased beyond this weight. The brain of Byron, for instance, is said to have weighed four pounds and a half; and that of the illustrious Cuvier, four pounds thirteen ounces and a half.* The size of this organ increases from the time of birth till manhood, remains stationary from this period until old age, and then diminishes in bulk and weight. The relative size of its different portions constantly varies during several of the first years of life, and it is not until about the seventh year that all its parts are formed. During childhood it is "very soft and even almost liquid under the finger, and its different parts cannot be clearly distinguished." Still at this time it is supplied with more blood, in proportion to its size, than at any subsequent period. It then grows most rapidly, and more rapidly than any other organ: its weight is nearly doubled at the end of the first six months; and hence the nervous system, being connected with the brain, is nearly developed, and becomes the predominating system, in youth. At this period of life, however, which is devoted to the increase of the body, it is necessary that the nervous system should predominate; for this system is the source of all vital movement,

* There is an error here. Cuvier's brain weighed but 63 ounces. Dupuytren's weighed 64. That of the late Dr. Abercrombie weighed 63. According to Reid, the average weight of the encephalon in a man between 50 and 60 years of age is 50 ounces 2 drachms. See *British and Foreign Medical Review*, for July, 1844. C.

and presides over, and gives energy to those actions which tend to the growth of the organization. Besides, 'infancy,' says Bichat, 'is the age of sensation. As every thing is new to the infant, every thing attracts its eyes, nostrils, &c. That which to us is an object of indifference, is to it a source of pleasure. It was then necessary that the nervous cerebral system should be adapted by its early devolpment to the degree of action which it is then to have.'

"But this great and early development, though necessary for the above purposes, very much increases the liability to disease; it gives a tendency to convulsions, and to inflammation and dropsy of the brain, and to other diseases of the nervous system, which are most common and fatal in childhood.

"It is, therefore, deeply important, that the natural action of the nervous system should not be much increased, either by too much exercise of the mind, or by too strong excitement of the feelings, lest at the same time the liability of children to nervous diseases be increased, and such a predominance given to this system as to make it always easily excited, and disposed to sympathize with disorder in any part of the body."

Dr. Brigham alludes to a number of facts, and adduces several curious cases, showing the effect on the mind of diseased excitement and enlargement of the brain. The intelligent reader can doubtless call to mind many cases of this sort; as also of the kind next noticed, arising from the action on the brain of intoxicating drinks. Unfortunately there are but too many instances that warrant the paradoxical assertion of a man's being most sober when he is most drunk. "Who," says the author, "has not felt that transient joy, happiness, and courage is a marketable commodity, that 'ecstacies can be corked up in bottles, or peace of mind sent in gallons by the mail-coach?"' We subjoin one of the most remarkable examples of precocity and enlargement of the brain quoted by the author; it was furnished to the American Journal of the Medical Sciences, for 1836, by Prof. Horner:

"Master William M., the fourth child of his parents, was born in Philadelphia on the 4th of June, 1820. At birth, his head was of ordinary size, but very soon, after an attack of

dropsy of the brain, it began to grow inordinately. After he began to walk, its size was so great that he attracted much attention; and he was apt to fall, especially forwards, from readily losing his equilibrium. His health was generally good.

"Dec. 12th, 1828, he fell against a door, and bruised his forehead; in an hour afterwards he vomited, became very sick, and died the next evening. During his short sickness he had no headache, and complained only of his stomach.

"On examining his head, the day after his death, it was found to be considerably larger than that of a full-grown person, measuring twenty-eight inches in circumference. The lateral ventricles contained a great quantity of transparent serum, which had distended the brain to a very great degree, and produced much of the enlargement of the head. The appearance of all the parts of the brain it is not necessary to particularize. Many parts, especially those at the base of the brain, were healthy, and the small blood-vessels were generally congested with blood.

"The following interesting account of this child's mental and moral faculties, was furnished by Dr. J. K. Mitchell, the family physician: 'When 15 months old, the child spoke well, and, at 18 months, was able to sing a variety of musical airs with tolerable correctness, and always exhibited a strong predilection for music. His intellectual faculties generally were very respectable, and his powers of observation rather remarkable. But his memory, both of language and sentiments, was such as to excite surprise in those who took pains to converse with him. The following example of his powers of recollection may not be amiss. A customer of his father having been absent two years, returned, and, on his entrance into the shop, saluted as an acquaintance, its inmates; but they had forgotten him. On turning to little M., the latter immediately called him by name, inquired kindly about him, and then told him that he had not been to see them for two years.

"'Of a grave and quiet temperament, he preferred the society of his seniors, and took little interest in the common pastimes of childhood. Only sedate children were agreeable to him. For so youthful a person, his sentiments and affections were of a lofty character. Seeing the distress of his mother when commercial affairs took his father to Europe, the child, then five years of age, said, 'Father will soon be back: if he don't come again, I will be a husband to my mother, and will work for her, and take care of her when she is old.'

"For two years before his death, little M. became affected by religious impressions, which grew stronger and stronger, until his death. Often advising others, he presented in his own conduct, a fine exemplification of his principles, being distinguished among the children of the family and the school, for love of truth, and general sincerity of character. At length, even while in full health and vigor, he spoke of death as a thing to be desired; and when dying, expressed pleasure at the approaching crisis."

Dr. Brigham illustrates this branch of his subject by a reference to the enlarged brain and early mental development of rickety children. He adverts also to the danger of mental excitement in children of scrofulous diathesis, in whom there is ofttimes a rare development of mind. This danger is rendered more striking by a fact which the author does not notice. Recent pathological investigations have shown the extreme liability of strumous children, from 2 to 10 years of age, to *tubercular meningitis.* It is more insidious in its approach even than the ordinary form of meningitis, and once established nearly always pursues its march uncontrolled. Hence the increased necessity of studiously avoiding every thing that will unduly excite the mind, of keeping in check the early maturity of understanding when it exists. Safety is only to be found in aiding by all possible means the development and improvement of the other organs of the body.

The third section is devoted to a consideration of the consequences which have resulted from inattention to the connexion between the body and mind, and to the illustration of the fact that the best minds are not produced by early mental culture. There is truth we think in the following paragraph:

"Teachers of youth, in general, appear to think, that in exciting the mind, they are exercising something totally independent of the body,—some mysterious entity, whose operations do not require any corporeal assistance. They endeavor to accelerate, to the utmost, the movements of an extremely delicate machine, while most unfortunately they are totally ignorant or regardless of its dependence on the body

They know that its action and power may both be increased for a while, by the application of a certain force; and when the action becomes deranged, and the power destroyed, they know not what is the difficulty, nor how it can be remedied. Fortunately they do not attempt to remedy it themselves, but call in the physician, who, if he affords any relief at all, does it by operating on a material organ. If medical men entertained the same views as teachers, they would, in attempting to restore a deranged mind, entirely overlook the agency of the body, and instead of using means calculated to effect a change of action in the brain, would rely solely upon arguments and appeals to the understanding. For if the mind may be cultivated independent of the body, why may not its disorders be removed without reference to the body?"

The author inveighs strongly and justly against the excessive abundance of *books for children*, and the absurdity, nonsense, and falsehood, contained in many of them.

"Where is the proof that they have ever benefited a single child? Do the youth now, of the age of 15, who have used such books the most of their lives, who committed to memory innumerable truths, and were taught to reason when at the age of 3 or 4, possess more active and independent minds than their parents possessed at the same age? Does their mental power *now* show the *good* effect of their early and extraordinary culture? Do not the numerous slender, delicate and pale-faced youths who are seen in our colleges, and in boarding schools for girls, exhibit the *bad* effects of this system? I ask again, where is *any* evidence that books, put into the hands of children before the age of seven or eight, are of any lasting benefit, either to the body or the mind?"

The mode of teaching also comes in for a share of censure:

"The method of teaching little children varies in different schools; but that is everywhere considered the *best* which forces the infant mind the *fastest.* In some schools the *memory* is chiefly cultivated, and children are taught innumerable facts. Here we see those who are scarcely able to talk exhibited as wonderful children. They are declared to be deserving of the highest praise, and prophesied about as giving promise of great distinction in future, because they are able to tell us

who was the oldest man, and many other equally useful and important facts. They are also able to tell us many truths in astronomy, geometry, chemistry, &c. &c., of which the innocent beings know about as much as do parrots of the jargon they deliver. In other schools teachers are opposed to such practice; and say that a child should learn nothing but what he understands; that the memory should not alone be cultivated; therefore they teach children that Methuselah was not only the oldest man, and nine hundred and sixty-nine years of age, but that he was the son of Enoch, and the grandfather of Noah, and that a year means three hundred and sixty-five days, and a day twenty-four hours; and all this they teach in order, as they say, that a child may *fully understand* what he learns. Other teachers say that it is very wrong to *compel* a child to learn—very wrong indeed; and that he should learn no more than he will cheerfully; but though they do not gain their purpose by exciting *fear*, they awaken other passions of the strongest kind in the child, by a system of *rewards* and of *praise*."

Dr. Brigham professes to speak on this subject from personal observation. The observation of others can supply the parallel to what we have just quoted, and also to the following:

"I have seen a course like the following pursued in many families in various parts of the country, and I know that this course is approved of by many excellent persons. Children of both sexes are required, or induced, to commit to memory many verses, texts of scripture, stories, &c., before they are three years of age. They commence attending school, for six hours each day, before the age of four, and often before the age of three; where they are instructed during three years in reading, geography, astronomy, history, arithmetic, geometry, chemistry, botany, natural history, &c. &c. They also commit to memory, while at school, many hymns, portions of the Scriptures, catechisms, &c. During the same period they attend every Sunday and Sabbath school, and there recite long lessons; some are required to attend upon divine service at the church twice each Sunday, and to give some account of the sermon. In addition to these labors, many children have numerous books, journals, or magazines to read, which are designed for youth. I have known some required to give strict attention to the chapter read in the family in the morn-

ing, and to give an account of it; and have been astonished and *alarmed* at the wonderful power of memory exhibited on such occasions by children when but five or six years of age. I have known other children, in addition to most of the above performances, induced to learn additional hymns, chapters of Scripture, or to read certain books, by the promise of presents from their parents or friends."

As consequences of a course like this, the author says he has seen children die at the age of six or seven years, exhibiting to the last a maturity of understanding that only increased the agony of a separation; others grow up to manhood with feeble bodies and disordered nervous systems; others, and perhaps the most numerous class, exhibit in after life a small degree of intellectual power, and become the passive instruments of those who in early years were accounted their inferiors.

The observations contained in our next extract are unquestionably true. One memorable and immortal instance will suggest itself to the medical reader—we need scarcely name John Hunter. Besides the examples among our countrymen adduced by the author, others are not wanting both of the past and present. Patrick Henry's early culture consisted mainly of trout-fishing; Hamilton, than whom few more remarkable men have ever lived in any country, was a merchant's clerk; Channing, beloved during life, and whose fame is growing brighter and brighter every day, spent his youth wandering among the green fields and forests; Sparks pushed the jack-plane even after he had arrived at manhood; Cooper was a naval officer.

"The history of the most distinguished men will, I believe, lead us to the conclusion, that early mental culture is not necessary in order to produce the highest powers of mind. There is scarcely an instance of a great man, one who has *accomplished* great results, and has obtained the gratitude of mankind, who in early life received an education in reference to the wonderful labors which he afterwards performed. The greatest philosophers, warriors, and poets, those men who have stamped their own characters upon the age in which

they lived, or who, as Cousin says, have been the 'true representatives of the spirit and ideas of their time," have received no better education, when young, than their associates who were never known beyond their own neighborhood. In general their education was but small in early life. *Self-education*, in after life, made them great, so far as education had any effect. For their elevation they were indebted to no early *hot-house culture*, but, like the towering oak, they grew up amid the storm and the tempest raging around. Parents, nurses, and early acquaintances, to be sure, relate many anecdotes of the childhood of distinguished men, and they are published and credited. But when the truth is known, it is ascertained that many, like Sir Isaac Newton, who, according to his own statement, was 'inattentive to study, and ranked very low in the school until the age of twelve;" or, like Napoleon, who is described, by those who knew him intimately when a child, as 'having *good health*, and in other respects was like other boys,'† do not owe their greatness to any early mental application or discipline. On the contrary, it often appears that those who are kept from school by ill health or some other cause in early life, and left to follow their own inclination as respects study, manifest in after life powers of mind which make them the admiration of the world."*

As a practical commentary on what is here stated, Dr. Brigham gives the following sketch of one of the most profound and distinguished jurists of this country.

"'I was brought up among the highlands and hilly parts of Connecticut, and was never kept on the *high-pressure* plan of instruction. It was not then the fashion. I went to school, and studied in the easy, careless way, until I went to college. I was daily, and sometimes for a month or more, engaged in juvenile play, and occasional efforts on the farm. I was roaming over the fields, and fishing, and sailing, and swimming, and riding, and playing ball, so as not to be but *very superficially learned*, when I entered college. I was not in college half the time. I was at home, at leisure, or at gentle work, and much on horseback, but never in the least dissipated. I easily kept pace with my class, for it was in the midst

* Shakspeare, Moliere, Gibbon, T. Scott, Niebuhr, W. Scott, Byron, *Franklin, Rittenhouse, R. Sherman*, Professor Lee, Gifford, Herder, Davy, Adam Clarke, &c.

† Memoirs of the Duchess of Abrantes.

of the American war, and there no scholars, or much stimulus to learn. Silent leges inter arma. When I went to study law, I had my own leisure, and great exercise and relaxation in enchanting rides, and home visits, until I got to the bar. I lived plain, drank nothing but water, ate heartily of all plain wholesome food that came in my way; was delighted with rural scenery, and active and healthy as I could be. Here I laid the *basis of a sound constitution*, in which my brain had not been unduly pressed or excited, and only kept its symmetry with the rest of the animal system. It was not until I was twenty-four that I found I was very superficially taught, and then *voluntarily betook myself to books*, and to learn the classics, and everything else I could read. The ardor and rapidity with which I pursued my law and literary course, was great and delightful, and my *health and spirits* were sound and uniform, and neither has faltered, down to this day.'"*

The early history of Walter Scott, quoted in another place, is to the same purport. He, however, at last died of softening of the brain, induced by vast mental labor in the latter years of his life.

To go back a little, may we not say with the author, that "it is a great mistake to suppose children acquire no knowledge while engaged in voluntary play and amusements."

"They thus do acquire knowledge as important as is ever acquired at school, and acquire it with equal rapidity. Many think that the child who has spent the day in constructing his little dam, and his mill, in the brook, or the stream that runs in the gutter; or in rearing his house of clods or of snow, or in making himself a sled or cart, has been but idle, and deserves censure for a waste of his time, and a failure to learn anything. But this is a great error of judgment; for, while he has thus followed the dictates of nature, both his mind and body have been active, and thereby improved. To him anything which he sees and hears and feels is new, and nature teaches him to examine the causes of his various sensations, and of the phenomena which he witnesses. For him, the Book of Nature is the *best book*, and if he is permitted to go forth among the wonders of creation, he will gather instruction by the eye, the ear, and by all his senses.

"He is for a while just as ignorant that stones are hard, that snow will melt, that ice is cold, that a fall from the tree

* Chancellor Kent. This was written after reading a copy of the first edition in 1833; and was not intended for publication.

will hurt him, and a thousand other common facts, as he is of a 'parallelogram,' or 'perimeter,' or the 'diameter of the sun,' or the 'pericarpium of flowers,' or of many other similar things, which some think important for infants to know. If his time is constantly occupied in learning the last, he will grow up ignorant of many common truths, and fail in the best of all learning, *common sense.*

"The child, when left to himself, manifests a true philosophical spirit of inquiry. The story related of the celebrated Schiller, who, when a boy, was found in a tree, during a thunder-storm, trying to find where the thunder and the lightning came from, is an instance of the natural tendency of every child to self-education. This tendency it is highly important to encourage, for it involves the cultivation of that spirit of inquiry 'which is far more valuable than limited acquirements in knowledge; a spirit which teaches us to distinguish what is just in itself, from what is merely accredited by illustrious names; to adopt a truth which no one has sanctioned, and to reject an error of which all approve, with the same calmness as if no judgment was opposed to our own.' But this spirit will never be acquired, when the child is taught from his infancy to depend upon others for all he knows, to learn all he does learn as a task, and not from the desire of ascertaining the truth and gratifying his curiosity.

"Let not the parent, therefore, regret that his child has passed his early hours out of school; for in all probability the knowledge he has gained while running and exercising in the open air at play, is more valuable than any he would have gained at school. At all events, he has gained what is far, very far more valuable than any mental acquirements which a child may make, viz: a sound body, well-developed organs, senses that have all been perfected by exercise, and stamina which will enable him in future life to study or labor with energy and without injury."

In the fourth section the author fortifies himself with the opinion of celebrated physicians respecting early mental cultivation.

In the fifth he treats of the influence of mental cultivation and mental excitement in producing insanity, nervous affections, and diseases of the heart. In reference to insanity, the author's position now, and for a number of years past, at the head of a lunatic asylum, entitles his opinions to more

than ordinary weight. After glancing at certain facts in reference to this disease, he mentions the following as among the causes of its great prevalence in this country:

"First. Too constant and too powerful excitement of the mind, which the strife for wealth, office, political distinction, and party success, produces in this free country.

"Second. The predominance given to the nervous system, by too early cultivating the mind and exciting the feelings of children.

"Third. Neglect of physical education, or the equal and proper development of all the organs of the body.

"Fourth. The general and powerful excitement of the female mind."

The first two causes may be illustrated by certain facts relative to the city of Hartford (the residence of the author at the date of the first edition, 1832), "which are probably applicable to many if not most of the towns of the same size in the United States."

"This city contains about 7,000 inhabitants. Nearly all, if not all, the children of the city, commence attending school as early as the age of three or four, and attend six hours each day, for several years. Nearly all attend school on the Sabbath also. Most families have a library and books for children, besides newspapers and other periodicals. There are nine large churches in the city, belonging to six different denominations, exclusive of one for colored people. These are all well filled twice, and frequently three times, every Sunday. Besides, there are religious meetings on other days, amounting, in the various churches, to twenty or thirty during the week. There are two lyceums, or literary associations, both of which meet once a week, and are open to all, without expense. At one, are weekly debates, usually on some political or historical subject; and at the other is a lecture every week, on such subject as the lecturer pleases. Both of these are well attended. Every week, *seven* large political newspapers, advocating the interests of three different parties, are published in Hartford; and also *five* large religious newspapers; no two of which belong to the same sect. Several other periodicals are published here, but not weekly. In addition to the papers published in this town, men of business take one or more of

those published in the larger cities, and most of the reviews and magazines of this country, and of England, are received here and read."*

The evils resulting to both sexes from the neglect of physical education, are acknowledged by all; and the subject has attracted the attention of some of the best minds in the profession both at home and abroad. The ancients understood its value far better than we moderns—we who boast of our vast superiority in knowledge. With them the education of the body, if the expression may be allowed, was of paramount importance. Their gymnasia, their games, in which ofttimes sturdy manhood contended with supple and pliant youth, their martial sports and exercises, all combined to give them what we know they had, the soundest minds in the *soundest bodies*, the latter presenting the noblest specimens of physical conformation that the world has ever beheld. "Charmed in the Grecian stone," there they still stand, after the lapse of two thousand years, the wonder and the delight of mankind; and there too, according to a recent traveler, is still to be seen, in the descendants of that noble old race, "the one glorious shape transcendant in its beauty."

We hurry over the remainder of this section, which is occupied with organic diseases of the heart as a result of mental excitement. The author thinks them fearfully on the increase. We cannot forbear quoting a couple of sentences from a note furnished by Dr. Macnish.

"It is very common for young medical students to imagine they labor under aneurism of the aorta or some other form of disease connected with the heart or its great outlet, especially if their teachers touch strongly upon this subject. Such is especially the case with hard-working and assiduous youths, whose over-tasked brains induce palpitation of the heart."

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* On inquiry at the post-office, I learn that eighty daily, one hundred and ten semi-weekly, and four hundred and thirty-two weekly newspapers, published in other places, are taken by the inhabitants of Hartford. Besides more than three hundred dollars are annually received at the same office for postage on papers and pamphlets that are received irregularly.

The experience of all of our readers will tally with that here set forth. We have a pleasant reminiscence of a fellow-student of our own (a most "hard-working" and "assiduous" one he was too) who more than once labored under hypertrophy with dilatation, had at divers times aneurism of the aorta, and survived all sorts of valvular diseases.

Section sixth is occupied with the subject of moral education. We commend the following extracts to our *parental* readers:

"Such effects cannot, however, be produced by *precepts* alone. Children should be induced to *practise* the virtues which it is intended they shall possess, and by *practice* they should be endowed with good propensities and good habits. If parents would but feel that it is as essential to teach a child to practise the virtues that are desirable, as it is to cultivate the mind, and would give as much attention to the early development and proper exercise of the affections and passions, and take that pains to develope all the natural excellences of his character they do to accelerate his progress in knowledge, we should soon see a great and pleasing change in the dispositions and conduct of men. But now, in very many families, the greatest praise is not bestowed upon those children that are merely *good*, but upon those whose minds are most active and premature. In schools, much of the praise and censure, reward and punishment, connected with early mental culture, is calculated to awaken rivalry, envy, and hatred. Moral culture is sacrificed, in early life, to intellectual, and the bad passions are called forth to aid the mind's improvement; and then what originates from a faulty or neglected moral education is considered the fault of nature itself. But nature has not had fair play.

"*Example* is also of great importance in the education of children, in consequence of their natural propensity to imitation. * * * * Parents who are constantly manifesting fretful and unhappy dispositions, will do much towards producing like dispositions in their children. From these observations, those who have the care of educating children, cannot fail to see the importance of the examples they set them; they will also reflect that whatever is inculcated upon children by precept is of trifling consequence, compared with that which they learn by example; and if they wish to have their children possess a spirit of benevolence,

kindness, or humility, they must cherish and cultivate these virtues in themselves, and be particularly careful not to let any contradiction exist between their expressed opinions of the value of these dispositions and their own habitual conduct."

In section seventh the author argues that cultivation of the mind at a proper time of life is beneficial to health. He cites Brunaud to show that literary men have in all countries usually been long-lived. The fact is also evident from a table he gives at the end of the volume, showing the ages attained by distinguished personages both of ancient and modern times. The following statement contained in one of the author's notes will interest our readers:

"The Declaration of American Independence was signed by 56 delegates—35 from the Northern, and 21 from the Southern States. But *one* survives, and only *two* have died from accident. The whole number of years lived by these delegates, not including the two mentioned, is 3,609; or 66 years and 9 months each. Those from the Northern States average 70 years and a half, and those from the States at the South, a little less than 60."

In further illustration of this subject he says that the advance of knowledge and civilization has led to scientific discoveries which have saved thousands of lives, to the building of hospitals and charitable institutions by which life has been preserved and prolonged, and to the overthrow of superstitions that formerly destroyed an immense number of human beings. Bills of mortality show that the probability of life is greatest among the most refined and cultivated nations. Intellectual cultivation is beneficial by subjecting the sensual appetites and passions to the control of reason. According to the author it led to the reformation in the use of intoxicating drinks in this country, temperance societies being but the *effect* of the general diffusion of knowledge.

In the eighth and last section, Dr. Brigham discusses the influence of mental cultivation in producing dyspepsia in literary men. He thinks irritation of the brain by far the most frequent cause of this disease. We cannot follow the author,

much as we wish to do so, in his illustrations of this branch of his subject, but must here bring our notice to a close. We heartily concur, however, in his recommendation to "those who are worn down by mental labor and anxiety, connected with long-continued disorder of the digestive organs, to throw aside their *bitters*, *blue-pills*, *mustard seed*, *bran bread*, *&c.*, *&c.*, and seek bodily health and future mental vigor, in judicious exertion of the body, innocent amusements, cheerful company, ordinary diet, and *mental* relaxation."

We hope this imperfect notice of the book will help to make it known; and that the views which it inculcates may be deeply pondered on. History, including that of our own day and our own times, is full of mournful examples of men struck down in a brilliant and honorable career; or who "brokenly live on," in bodily and mental imbecility. Unfortunately, precepts and rules, warnings and signs, however strongly urged, and however plainly perceived, are too often totally disregarded—"seeing they will not perceive; hearing they will not understand." Two instances occur to us at this moment of distinguished men, in different spheres of life, who have recently fallen victims to severe mental labor. The one is a Senator from Massachusetts, the Hon. Mr. Bates, a man of great moral and intellectual worth, who died a few days ago at Washington. In the eloquent tribute to him by his colleague, Mr. Webster, it is stated that his fatal illness was brought about by his excessive application to the duties of an important committee of which he was chairman, and to the more general ones appertaining to his senatorial office. His friends saw that he was over-tasked, and urged upon him the necessity of relaxation—but to no purpose. The other is the late editor of the New York Journal of Medicine, Dr. Forry, along whose brief but bright career there went high hopes, not all unfulfilled, and over whose mortal resting-place there gathers a bright and holy light. He too had his warnings, self-perceived, for they came in no questionable shape, and again and again pointed out by his friends; but despite them all, and despite those maxims and precepts

which none knew better than himself how to counsel, he persisted in his protracted vigils and toils, even when he could scarcely assume the position necessary to write,

> "Like an inspired and desperate alchemyst,
> Staking his very life on some dark hope."

And thus it is to be feared it will ever be. Unquenchable thirst of knowledge, burning desires, and lofty aspirations—these now as ever will hold their wild sway over the human heart and the human mind; and year after year, youth of promise, manhood of vigor, and old age of greenness and freshness, will be sacrificed to the love of fame, the struggle for power, and the search for glory. C.

ART. IV.—*The Principles of Surgery.* By JAMES MILLER, F.R.S.E., F.R.C.S.E., Professor of Surgery in the University of Edinburgh, Surgeon to the Royal Infirmary, &c. Philadelphia: Lea & Blanchard. 1845. pp. 525. 8vo.

Most of our readers are aware that the author of this book fills the place vacated by the death of one of the most celebrated men of this century; and they share doubtless in the curiosity that we felt to know what manner of man the authorities of the University of Edinburgh had selected to succeed Bell, from among the number of distinguished individuals with which that city abounds. His name when first announced was certainly not generally familiar to the profession abroad, whatever it may have been at home; and we cannot help thinking that Prof. Miller was led to put forth his volume of "Principles" to show that the mantle of Bell had fallen on one not unworthy of it, nor yet unworthy to be the compeer of Syme, Lizars, and a host of others.

Be this, however, as it may, we confess ourselves pleased with the book. It is one of the few whose title expresses neither more nor less than what it contains; it is one essentially of *principles*, and these of such a sort as make us think the author is a skilful and discriminating surgeon.

The first section is devoted to *Elementary Disease* under the heads of *perverted action of the bloodvessels, of the nerves, of the absorbents; suppuration; ulceration; mortification.* In the second section, the author treats of elementary disease occurring in the different tissues, which gives us *perverted vascular action in the integuments, in the bones and joints, in the arteries, veins, lymphatics* and *nerves.* Section third is occupied with *perverted nutrition*, as seen in the different tumors; section fourth discusses *injuries*, including *wounds, burns* and *scalds, effects of cold, fracture, dislocation, &c.*

The longest and most elaborate chapter in the book is that wherein the author discusses the subject of inflammation. In this he shows that he has been not an unmindful observer of what is going on around him, but has profited by the progress of physiology and pathology, as elucidated in the past few years by chemistry and the microscope. Although his account of the successive changes which take place in inflammation are, we believe, correct, he assumes a somewhat novel ground as to what shall be understood by the term. It has, in the opinion of the author, been made to include "too wide a range," involving actions the most dissimilar and opposite. Hence he limits the term "to what is essentially morbid," and lays down, as the characteristic of true inflammation, the formation of pus.

Granting that "practical confusion and tendeney to error" have resulted from the views more commonly inculcated, it seems to us that instead of diminishing, he has greatly added to them; that in trying to avoid Scylla, he has gone reeklessly right over into Charybdis. According to the author's view, a man's brain may be overlaid with lymph, and a section of it disclose numerous rosaceous, or otherwise colored spots; but it is not inflammation, it is only "active congestion." The pleura and lung may be firmly united by false membrane; but it is only active congestion. The trachea may be lined by fibrinous exudation; yet it is only active congestion. The substance of the lung may be rendered impervious to air—may be hepatized; once more it is only active

congestion. The peritoneum and the serous covering of the intestines may be covered by lymph, as in a case which we recently saw; but still it is only active congestion. If this be not 'tendency to error,' and 'practical confusion' worse confounded, we would very much like to know what is. At this rate there would scarcely be any such thing as death from inflammation—we wish it were so. But in truth, the author is not consistent with himself. He proposes, as we just stated, to limit the term inflammation to that which is "essentially morbid." All very well; we do not object to this. We take the phrase, too, in his own sense, and in his own language, as meaning that which is "at variance with healthy function and structure." Now how many instances are there in which the effusion of fibrin is compatible with healthy function and structure? Nay, we will go further; in how many instances is the effusion of *serum* not at variance with healthy function and structure?

The fifth chapter, which includes ulcers, while it gives additional evidence of his scientific skill in managing disease, is liable to similar criticism. The necessity of a right classification and the positive harm arising from a wrong one, are properly urged, and then he proceeds to divide them into "1. The Simple Purulent, or Healthy Sore. 2. The Weak. 3. The Scrofulous. 4. The Indolent. 5. The Irritable. 6. The Inflamed. 7. The Sloughing. 8. The Phagedænic. 9. The Sloughing Phagedæna." Why this is as bad as Astley Cooper's twelve sorts of ulcer, and only not quite so bad as Everard Home's six principal varieties with as many sub-varieties, besides varicose ulcers, ulcers from irritation of the nails, and those attending various malignant diseases! If we speak of scrofulous ulcer, why not of scorbutic ulcer, arthritic ulcer, or an ulcer with any sort of prefix derived from actual or supposed peculiarity of constitution? Every body knows, thanks to Abernethy, that ulcers vary according to the varying states of the general system, and that they require both general and local treatment; but if all the differ-

ences thus derived are to be described, how many kinds of ulcer would we have? would there be any end to description?

But we came to praise the author not to find fault with him; and the arrangements of our printer have left us little room for either. The defects such as we have noticed, do not detract greatly from the absolute merits of the book, upon which we are disposed to set high value. The chapters on aneurism, hæmorrhage, wounds, and on the management of the inflammatory process, we think will more than warrant us in our opinion.

We make an extract from the latter chapter, on the use of mercury, simply because it happens to suit our limits. It will serve as a specimen of the author's compact and vigorous style, at the same time that it conveys valuable practical information.

"*Mercury.*—The mercurial is often the preferable form of purge at the outset of treatment—calomel, followed by jalap, for example; causing copious exhalation from the intestinal mucous membrane, promoting a free flow of bile, and—if that secretion be part of the fuel by whose intra-combustion animal heat is maintained, as chemistry has of late hinted—obviously tending to lower the febrile increase of temperature. But it is not as a purgative that mercury is chiefly antiphlogistic; not when it passes quickly through, but when it is retained in the primæ viæ, absorbed thence into the system, and lays hold of this, exerting on it a specific effect; the systemic seizure being usually indicated by fœtor of the breath, tenderness of the gums, and rawness of the mouth, which, if the introduction of the mineral be continued, advances to complete salivation. But as it was not the purgation, so is it not the salivation which we usually desire. Mercury, gradually introduced into the system, seems to exert a tonic effect on both the extreme blood-vessels and the lymphatics, that is on the exhalants and the absorbents; thus preventing or limiting impending effusion, and at the same time expediting the removal of that which has been already exuded. The affection of the gums is not of itself valuable, but only as showing that the impregnation of the system by the mineral

is so far advanced, as to be equal to the effecting of this result —truly antiphlogistic. Besides, mercury is supposed to act directly on the blood, affecting the red corpuscles, as well as assisting in the removal of the anormal proportion of its fibrin.

"From its power of at once limiting and removing effusion it is very plain how valuable must be its administration in all inflammatory affections of important internal organs, whose functions must seriously suffer by any considerable change of structure, however temporary; or when texture is extremely delicate—even slight effusion producing much disorder, and hard to be recovered from—as in the iris, and synovial membrane. When such parts are becoming truly inflamed we give mercury with much eagerness, desirous that its constitutional effect should be both speedy and complete. But he is a sadly thoughtless and reprehensible practitioner who throws in mercury with a loose hand and a careless eye for inflammations in general—real or supposed—regardless of the risk thereby encountered of hopeless ruin to the system at no very distant date, by the remote consequences of wanton and uncalled-for mercurialism. It is fortunate for us that such risk need not be dreaded by the wary surgeon, who not only gives no mercurial course unless such be demanded, but also inquires diligently into the circumstances connected with that demand, ere he admits it to be just and true. When satisfied on this point, he hesitates no longer; but proceeds to his duty of saving vitally important texture and function at all hazards, comforted by a belief, well-grounded on experience, that by such inflammations there is engendered a tolerance of mercury, both present and future.

"The best form of exhibition is calomel, usually combined with opium, in the form of pill; two grains of the former, with half a grain of the latter, repeated every hour or every two hours, according to the haste with which we desire to affect the system. The opium prevents the mercury being wasted as a purge, and insures its internal reception by absorption, while itself has a beneficially sedative result on both the nervous and vascular systems. It has lately been proposed—in accordance with a laudable desire to obtain the constitutional effect at the least possible cost of mercury—to give calomel in very minute doses, often repeated; as the twelfth of a grain every hour; absorption being supposed to take place very readily and fully from minute doses—as is exemplified in the internal use of arsenic. Such caution is

much to be commended, and such doses are highly allowable in cases of no great urgency, either as to intensity of action or importance of texture involved; but the old experienced dose, as above stated, is far more trust-worthy in the true inflammatory emergency. Should calomel and opium be found to disagree, a convenient substitute may be found in the hydrargyrum cum cretâ with Dover's powder. When it is desirable to affect the system with extreme rapidity, or when the ordinary mode of exhibition is peculiarly tardy, the desired result may be accelerated by rubbing in a mercurial ointment or liniment on the inside of the thighs, in the axillæ, or over the part affected.

"Mercury, however, let it ever be remembered, is only subsidiary and second to bleeding as an antiphlogistic. The intensity of the vascular action must be first broken by loss of blood; the remainder is then well dealt with by the mercury. But should the latter go single handed to the contest, it is sure to fail; harm is done instead of good; the inflammation and its accompanying fever are both augmented, as can be readily understood, when it is borne in mind that the direct effect of the medicine is stimulant or tonic to the capillaries.

"The time, then, at which we are to commence the exhibition of mercury for antiphlogistic purposes is after blood-letting; we desist when the gums have been 'touched,' as the ordinary phrase is, showing the attainment to systemic seizure; or we may often cease from its use at a still earlier period, the symptoms which demanded it having satisfactorily given way. Should the disease, on the contrary, prove obstinate, even after ptyalism has been induced, the mercury may be cautiously resumed, so as to maintain this until recedence or change in the symptoms occur; but in no case of mere inflammation is full, far less sustained, salivation at all necessary.

"In all cases, before enjoining its administration, it is well to inquire as to the existence or not of idiosyncrasy regarding it; whether the patient is easily affected, or otherwise; whether liable to the troublesome eczema, or to the dangerous erethismus.

"Should mercury both gripe and threaten to purge, notwithstanding combination with opium or hyoscyamus, it is well that the doses be given in some bulky vehicle. In non-inflammatory cases—as certain forms of the venereal disease—such disagreeable tendencies are readily avoided by giving the mercury immediately after the ordinary meals.

"Locally, mercury is of use, in the form of plaster or ointment, applied to the part affected; but the proper time for its employment is still later than that of the internal exhibition. It is meet to oppose, not the action itself, but rather its results on texture. All acuteness of action must have been previously subdued by the earlier and more appropriate remedies; and then mercurial inunction, by its tonic and stimulant effect on the blood-vessels and absorbents, may happily restore the tone of the former, as yet dilated and weak, and prone to continuance of effusion; while it rouses the absorbents to an increased duty, that effusion may be removed and normal condition of texture restored. But at an earlier period, the same application, now so beneficial, could not fail, by stimulating the blood-vessels, to aggravate the action and the changes of structure to which it tends."

We will only repeat, by way of conclusion, that the student will find in the book a body of sound principles, forcibly and concisely expressed. With this volume and some such work as Fergusson's *Practical Surgery*, his rough way may be made more smooth.

As to the style in which the book is published, it is sufficient to say it is from the press of Lea & Blanchard.

C.

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Rheumatism.—It is startling, on the retrospect of a large hospital practice, to observe how many hard-working men and women perish miserably before their prime, from disorders of the pulse and breath, consequent on attacks of acute rheumatism. Of British fevers, with the exception of small-pox and scarlet fever, there is, I believe, not one of which, in the long run, and in a given number of cases, the result is more frequently fatal.

To all who are held professionally responsible for the safe conduct of this disorder to its close, the question must continually recur, whether such large contingent mortality may not, in part, be attributed to erroneous rules of practice. Assuredly, the analogy of definite and consecutive action, which we have sought to establish between the rheumatic and other forms of fever, is seldom regarded in its treatment. Under the "alias" of acute rheumatism, this disorder is subjected, in a twofold capacity, to direct interference from the practitioner during the entire process of its self-evolution. The patient is made to pay by the lancet for its acuteness, and swallows every specific for gout and neuralgia, in right of his rheumatism. Yet, in the approved treatment of rheumatic fever, though the character of its action be special and inflammatory, the principle of its cure is not antiphlogistic, or one of specifics. Obtained, as in the other continued fevers, from the observation of symptoms in their context and progression, it assists in the development of action, and is content, for the most part, to follow indications. In ordinary cases, it has

been said that the fever of acute rheumatism is competent to the task of its own cure; yet no illness requires from the physician more careful and constant attention during its progress, for it is liable to many accidents and complications, with a sequel so harassing and protracted, that, of the patient, it is never known when he is fairly out of it. Moreover, it admits of great relief from various remedies, and may often be conducted, by judicious treatment, some days sooner, to its end; and when this is safe, it should always be done, for the case is never without danger while the fever lasts. Besides, with the means of relief in our hands, we cannot refuse, in this disorder, to prescribe for the pain—a symptom constantly present, and of proverbial severity. Here. in the administration of narcotic medicines, the principle of direct interference is at once admitted. From the indulgence of a false humanity, in getting rid of pain, without reference to its cause or context, and under the prevailing dread of all action, (in whatever kind or degree,) that is called by the bad name of "inflammation," there is reason to believe that many of the dangerous complications so frequent of late years in the pathology of acute rheumatism, do in truth proceed. In the well-known combination of calomel with opium, this mischievous diligence of treatment receives its most frequent illustration. The objects proposed in this heroic formula (when any are really entertained, for it began by caprice, and followed in the vogue) are not less than the immediate and complete extinction of fever, pain, and inflammation, with the consequent prevention of all dangerous complications, by organic lesion of the heart and other vital viscera. It is a rude empirical practice, which seldom succeeds, and, failing of success, is most injurious to the patient. In its routine application to the languid, weak, and exhausted, as to the full and vigorous habit of body, there is reason to believe that it has destroyed very many who, under less popular and energetic methods of treatment, would in due time have recovered.

It does not necessarily counteract inflammation of the heart, lungs, or pericardium. Again and again it has been observed in practice, that "heart symptoms" have been rapidly developed in cases of rheumatic fever, while under treatment by large and frequent doses of calomel in combination with opium. In many of these cases, is it not more than probable that the fevered masses of blood in circulation through the chest are directly influenced to their further prejudice by admixture with the drug and the mineral? With a full belief in the special curative agencies of mercury, yet knowing, in certain

constitutions, how entirely it disagrees, and how dangerous it occasionally becomes from coincident effects of functional disorder or organic disease, we cannot be too careful in opposing it specifically to the fever of acute rheumatism. Calomel is not in any special relation of cure or relief with the rheumatic diathesis, and should not be employed in the simple rheumatic more frequently than in the simple continued fever. When I first entered on hospital practice, though continually deprecating the reckless use of mercury which then prevailed, I fell much into the habit of prescribing two grains and a half of calomel, with the fourth or the half of a grain of opium, at intervals of four or six hours, in the early stages of rheumatic fever. I have now for many years past discontinued the use of this compound alterative, and see no reason to recur to it.

There has been, of late years, such a crying up, among certain sectarians in London physic, of calomel in combination with opium, as specific in all inflammations, general, local, and special, that, holding this prescription on a threefold trust, we are compelled to it, on every count, in the cardiac aggravations of rheumatic fever.

Yet who could, with confidence, affirm that, by the employment of this formula, he had, in any one instance, prevented adhesion of the pericardium, or arrested the vegetations, by fibrinous deposit, on the cardiac auricular valves. Assuredly, under the free use of calomel with opium, the symptoms, as obtained by sound or otherwise, that are observed in coincidence with these states of the heart and its membranes, have not unfrequently been known to subside; but it is equally certain that the same effects of relief have followed, on very different and less energetic modes of treatment. The question remains, whether the mercurial salt, not being always needful in cardiac rheumatism, may not sometimes be injurious.

London Lancet.

Magnesia. — M. Mialhe, in the "Journal de Pharmacie," June, 1844, has a paper on the different varieties of magnesia, which presents some points worthy of attention. Calcined magnesia is imported into France from this country, and the French practitioners find a very marked difference in the therapeutic effects of the imported and homemade magnesia, for which M. Mialhe undertakes to account. He says that the calcined magnesia which comes from London has been ex-

posed, after calcination, either intentionally or accidentally, to a moist atmosphere, and has absorbed water to the extent of from 12 to 20 per cent. This he regards as an imperfect hydrate of magnesia. When the French calcined magnesia is made into a draught, it solidifies into a paste; the English remains permanently fluid. There is between the two magnesias the same difference as exists between lime spontaneously slaked in the air, and lime suddenly slaked by the affusion of water. The latter only is capable of forming a solid mortar, and is therefore exclusively employed in masonry.

There is a very close analogy between lime and magnesia; there is a caustic or quick magnesia, as there is a caustic or quick lime; and there is a slaked magnesia, as there is a slaked lime.

Anhydrous or caustic magnesia has very little affinity for carbonic acid; consequently, when calcined magnesia is kept in a dry place, it will remain for years without combining with the carbonic acid of the atmosphere; and even when it has attracted water, and become converted into hydrate, it has far less affinity for carbonic acid than is generally supposed. It is almost insoluble in acids; but it is in its caustic or anhydrous state that magnesia must be employed to convert balsam of copaiba into pills.

Ignorance of this point has caused several samples of copaiba to be rejected as bad, because hydrated magnesia was employed to solidify it, which it does not effect.

Caustic magnesia should never be employed in medicine, at least in large doses; first, because it is more difficult of solution in the acids of the stomach than hydrated magnesia; second, because its property of combining with water, and rendering solid ten times its own weight, would, if given in large doses, be likely seriously to injure the coats of the stomach. Hence the thirst which follows the administration of calcined magnesia, and the tenesmus from conglomeration in the lower bowels. These symptoms often oblige patients to discontinue the use of magnesia.

M. Mialhe suggests that practitioners should be careful not to employ freshly prepared calcined magnesia, or rather, that in order to have a preparation of uniform strength, calcined magnesia should be combined with one-fourth part of its weight of water, which he proposes to call magnesia hydrated to one-fifth, and he says this forms by far the best form in which magnesia can be employed medicinally.—*Ib.*

Origin of Fat in the Animal Body.—The French chemists continue their experiments upon this important physiological question, being by no means willing to admit that the formation of butyric acid in fermentation from amylaceous principles, is conclusive as regards the origin of fat in the animal body. M. Boussingault has recently published a series of experiments, prefacing his paper with some sarcastic remarks on Dr. Lyon Playfair's communication to the chemical society. He says that Dr. Playfair, in *four* days, tried the influence of four distinct regimens on lactation in the cow, forgetting, in his hurry, to determine the amount of fatty matters in the food, but taking, hypothetically, 1½ per cent. as their contents, whereas there was more than double that amount. Dr. Playfair's experiments Boussingault regards as valueless. In order to throw some light upon this subject, the latter carefully weighed two cows, and subjected them to a rigid diet, analyzing their food, their milk, and excrements.

Boussingault found that the cows, when fed upon beet-root or potatoes, invariably lost weight to a considerable extent, even when they had a superabundant supply. He observes upon this, that an animal's food may be insufficient from various causes. First, if it does not contain a sufficient amount of nitrogenous principles to supply the place of those continually separated from the organism. Secondly. If the amount of carbon be insufficient to replace that burnt or secreted. Thirdly. If there be any deficiency of salts, particularly phosphates. Fourthly. If the food be not sufficiently rich in fatty matters.

The conclusion to which his experiments have led M. Boussingault is, that the food of the herbivora should always contain substances analogous to fat, and which is destined to aid in the production of the fat of the tissues, or in the formation of the several secretions, which contain a considerable proportion of fatty matters, as the bile and milk. If cows continue to yield milk and other secretions, which, in a state of health, are the result of proper feeding, after they are supplied with food wanting in fatty principles, it must be at the expense of their own fat, and they will lose weight daily. A cow, whose food is suddenly changed to aliments deficient in fat, will, perhaps, continue to yield for some days the same weight of butter, but with a loss of fat from the tissues, and the health of the animal will accordingly suffer.

Other experiments on pigs, according to M. Dumas, gave the same results.—*Ib.*

Phlegmasia Dolens, Gonorrhœa, and Rheumatism. — Mr. Hancock detailed the following case: A man came under his care at the hospital with gonorrhœa, which had existed six or eight weeks; the discharge ceased, and the man was seized with gonorrhœal inflammation of the knee-joint; this spread to the ankle, and the wrist-joint. One morning he complained of great pain in one of the legs, and on making examination, it was found to be affected with complete phlegmasia dolens, and the femoral vein was evidently hardened. On examining the penis, the veins on its dorsum was hard as a cord, and thickened. Now might not the inflammation of the veins of the penis have spread to the pelvic veins, and afterwards to the veins of the leg? Phlegmasia dolens appeared to arise from inflammation of the uterine veins, and there seemed, throughout his case, to be something analogous, for in patients dying of inflammation of the veins, pus was often found in the joints. The patient, in this case, recovered under antiphlogistic treatment. He (Mr. Hancock) had seen cases of gonorrhœa in which, when the discharge suddenly ceased, there would be pleuritis, or inflammation of the joints. He had seen one case in which peritonitis came on from this cause.—*Ib.*

Medical Society of London, Monday, Dec. 2, 1844.

Mr. Dendy read a letter on the *Tolerance of Disease.*

He said, that during our pathological investigations we were very often surprised, and sometimes astonished, at the extensive organic lesions and encroachments which took place in the body with so little comparative distress, or even indication, during life. This was, of course, often dependent on the natural powers of resistance to disease, but chiefly on those which were the result of a slow or gradual development of the morbid condition.

In the double organs, especially those of the brain, lungs, and kidneys, this fact was often beautifully evident. A cerebral hemisphere might be reduced to a pulp, a lung hepatized, or a kidney absorbed, and yet mind, and respiration, and urinary secretion might go on without any very extraordinary interruption or derangement.

Some years ago he related to the society the case of a young lady of Wandsworth, in whose brain there was a large tubercle, involving the corpora striata and the thalami, and a ventricle full of yellow serum, and yet, although severe symptoms had been present, the child was occasionally cheerful and

smiling, and had apparently even enjoyed herself a day or two before her death.

Case of Hobnailed Liver.—Two other cases had lately been under his care, which again illustrated this subject.

One of these was the case of a lady, residing in Piccadilly, of about forty years of age, whom he had himself attended for various maladies during the last three years. She had, however, during almost her whole life, been afflicted by many severe ailments, and yet through all this had preserved a cheerful and serene disposition. When about twenty years old, she was the subject of a series of chronic abscesses, during the course of which she was reduced to a skeleton, her arm having been twice sentenced to amputation. The limb was, however, preserved. About a year ago she suffered under severe and complicated hepatic derangement, attended by very acute pain and sleepless nights, this being, indeed, the third attack she had experienced. On examining the abdomen, he was surprised to find it distended irregularly, the liver, especially, being extremely tumid and indurated; and through the integuments it was clearly ascertained that the viscus was extensively diseased, with a nobulated deposit, by some, he believed, termed the "hobnail liver." This condition, she assured him, she had labored under for many years. On her convalescence from the acute stage of this condition, he sent her to Essex, and on her return, although she seemed happy and had gained flesh, he found a large, red, angry swelling on her back. This variety of anthrax he attempted to subdue, but it sloughed extensively; and, as it adhered firmly for some time, he dissected the greater portion from its attachments. This was now nearly well, and the lady herself apparently so, but she still bore about with her a studded and tumefied liver.

Extensive Scrofulous Disease.—The other case was that of a child, eight years old, an infirmary patient. About a year ago she was presented to him with the ends of her fingers and thumbs enlarged and discolored, with other marks of struma. Iodine, internally, reduced the swelling of the fingers very nearly to their natural size, and he had prepared the case as one illustrative of the beneficial influence of iodine in struma.

About a month since she was again admitted, complaining of lumbar pains, &c., the sécretion of urine being very scanty, passing almost guttatim. Her sister at this time lying ill with variola, Mr. Ainger saw her at home a day or two after, and although there was no prominent symptom to fix on, he suspected she might be laboring under suppressed variola. On

the next day, without exciting much previous attention or anxiety among her friends, she suddenly died, without convulsion or other evident cause of dissolution.

In about thirty hours, Dr. Willshire, Mr. Ainger, and himself, examined the body, and the appearance he would thus briefly describe:

Alimentary canal and liver healthy. Heart flabby, with some yellow specs on its surface. Lungs partially hepatized, and also studded with tubercles of various sizes, but not suppurating. Spleen very much enlarged and gorged, of a deep crimson hue, also studded thickly with large tubercular spots; its weight one pound. The left kidney nearly three times its normal size, also tuberculated; the right not much enlarged, but indurated, nodulated, and misshapen. The thyroid and cervical glands were extensively diseased, some indurated, others softer, and tuberculated; and they were so firmly pressing on the cervical and air-passages, that it seemed wonderful that cerebral circulation or respiration could, even for an hour, be carried on, and yet neither delirium nor convulsive action, nor dyspnœa, were at any time observed during her illness.

Several cases showing the tolerance of disease were related.

The president mentioned a case in which the spinal cord, at one portion, was so soft, through its entire extent, that it could be poured from its canal; the only symptom had been constipation.

Mr. A. Fisher detailed a case of abscess, as large as a hen's egg, filling up nearly one hemisphere of the cerebellum, in which the only symptom preceding death was a violent earache, which continued for twenty-four hours.

Mr. Headland related a case of extensive suppuration, affecting the white matter of both hemispheres of the brain, but more particularly the left, the suppuration extending on that side to the lateral ventricle. There were no previous symptoms, except within a day or two of her death, when she was suddenly seized with most violent pain in the head, succeeded by rigors, intolerance of light, and a remarkably rapid pulse. The intellectual faculties remained perfect to the last. He related a case, also, in which a boy lost a portion of his brain from a kick by a horse, and recovered.

Mr. Stedman alluded to the case of a man who was stabbed by a bullock, the horn passing through one of his eyes and out at the upper part of the head. He lived forty-eight hours; intellect was perfect to the last. He related a case, also, of atrophy of one entire lung, in which the patient never complained, and pursued his work of threshing till a very short time before death.

Dr. Leonard Stewart recollected seeing a brain studded all over with tubercles, in which no symptom had existed during life.

Dr. Garrod had seen a case in University College Hospital, of a woman who complained only of general *malaise*, slight cough, and dyspnœa, with occasional pain in the back. Every organ was found, after death, to be affected with cancer.

London Lancet.

A case in which sixteen Sewing-Needles and four Pins were extracted from the Wrist.—About the 21st or 22d of September last, I was called to see a young lady, Miss P———, with her hand and wrist much swollen and inflamed, and very painful and stiff, in consequence, as she supposed, of a sprain. The pain was of the acute lancinating kind, and was much increased by the least attempt to move or bend the wrist. She was ordered to keep it perfectly at rest and apply evaporating lotions.

Sunday, September 29th, called again, and found the hand and wrist of nearly normal appearanee, but she was not able to bend the joint without violent pain, extending up the whole length of the arm. On examination, I discovered on the back of the wrist, a short distance below the extremities of the radius and ulna, and near the middle of the wrist, just under the skin, some foreign body, apparently confined between the bones. Supposing from her account that it must be a small spiculum of bone, I made an incision directly over the body, and having by a probe ascertained its exact position, I introduced a small pair of forceps, and, to my great surprise, extracted three pieces of needles. During the ensuing week, at different times, I extracted other pieces, in all eleven whole needles and four pins without heads. Since that time, my father, Dr. Gordon P. Spencer, has extracted and sent to me two others. In all sixteen needles and four pins have been extracted—three of the needles were broken into numerous pieces, all were much corroded, and most of them considerably bent. How these bodies came there, it is impossible to say, but from the manner in which they were confined, the depth from which they were taken, and the whole appearance of the parts as well as of the needles, it seems impossible that she could have voluntarily introduced any one that was extracted. Some were found as much as two inches above the incision, laying directly between the bones.

Medical Examiner.

The editor decides upon this case, no doubt correctly, that the young lady herself inserted these instruments—probably during a temporary aberration of mind, known not to be a rare occurrence in hysterical females. How else could the pins and needles have found their way into such a place?

Case of Sudden Blindness, (produced by effusion of blood on the optic nerve?)—M. D., aged 18, a laundry-maid, of strumous appearance, came to me on the morning of the 8th of October. The previous evenihg, as she was reaching up to take some clothes off a line, she experienced a sensation as if something had fallen into her left eye, followed by total and instantaneous loss of vision. There was no lachrymation nor any inflammation of the conjunctiva; the cornea and humors perfectly clear and unclouded, so that it was evident there was no effusion of blood within the eyeball. There was slight redness of the parts surrounding the eye, probably produced by the patient's having rubbed the eye a good deal. The iris contracted and dilated actively, according as the light was more or less intense; though there was no perception whatever of light, even on holding a candle pretty close to the eye. On making an examination, I found there was no foreign body present, though she still complained of the sensation of something being in the eye. There was deep-seated pain in the orbit, and supra-orbital headache. She was ordered to take a brisk purgative, to have leeches to the temple, and afterwards to keep a cold lotion applied to the eye. She was further directed, as soon as the medicine had operated freely, to take a powder composed of calomel, gr. i. ½, opium, gr. ½, tartarized antimony, gr. ⅛, which was to be repeated every second hour.

The next day a blister was applied to the temple, and the mercury continued. On the 10th the leeching was repeated, as she complained greatly of the pain in the orbit and forehead. Mercury continued.

11th.—Mouth becoming tender. Continued the mercury. In the evening she could distinguish the light of a candle.

12th.—Could see pretty well; the gums sore. Stopped giving mercury.

13th.—Vision quite restored, and has continued so ever since. There was no fever at any time during this attack, and the pulse was never above 70, soft and full.

London Medical Gazette.

Comparison between a new Vaccine Virus and that of 1836. M. Fiard has communicated to the Academy of Sciences, Paris, the result of experiments which he has made, in order to establish the differential characters of the development, march, and duration of the vaccine matter recently discovered by M. Magendie and himself, compared with that of 1836.

In one *arrondissement*, he inoculated 351 persons with it. It appears to be more active than the old, and to possess a greater facility of transmission in man. From these experiments, M. Fiard is of opinion that it is not, as has hitherto been thought, the greater or lesser development of the vaccine pustules on the eighth or ninth day, which essentially demonstrates the degeneration of the virus, but the regular and continued progress, and especially the duration of the eruption, which indicates the various degrees of this degeneration. It is more particularly, as in small-pox, the shortening of the regular period of the eruption, which denotes the attenuation of, or decrease of efficacy in, the virus collected from the cow, and artificially transferred and kept up in the human subject.

Tables containing the comparative facts, with regard to the development, march, and duration of the new vaccine lymph of 1844, and that of 1836, in the same child, show that, till the eighth day, there is no difference; but, on the ninth day, the desiccation of the old pustules commences, and is complete on the thirteenth or fourteenth day. The progress and development of the new, on the contrary, are slower, and desiccation is not complete till the sixteenth or seventeenth day, thus showing a difference of from three to four days.

Jenner's vaccine lymph, after thirty-nine years transmission from man to man, compared, in 1836, to the lymph of that period, dried upon the twelfth day; while that of 1836, like that of 1844, did not complete its desiccation till the seventeenth day. That of 1836, in the present day, after eight years sojourn in the human subject, compared to that of 1844, which does not dry up till the seventeenth day, desiccates on the thirteenth or fourteenth day, the eruptive duration thus losing three or four days. — *Med. News*, from *Prov. Med. and Surg. Jour.*, *Dec.* 18, from *Gaz. Méd. de Paris.*

Statistics of the Medical Practitioners of Paris. — The following statistical table has just appeared in a work (Almanach Général de Médecine) published by M. Domange. The num-

ber of doctors in medicine and surgery, on the 1st of January, 1845, was 1,430; in 1833, there were 1,090; in 1836, 1,220; in 1839, 1,310; in 1841, 1,360; in 1843, 1,423. Of the 1,430, 1,323 are of the Faculty of Paris; 50 of that of Montpelier; 31 of that of Strasburgh; 26 from foreign universities, authorised to practise by *ordonnance royale;* 15 are doctors in surgery; 8 doctors in medicine and surgery; 10 are dentists; 14 oculists; 16 homœopathists; 4 magnetizers; 320 are members of the Legion of Honor (4 commanders, 50 officers, and 266 knights;) 42 do not practise, some from age and infirmities, others because exclusively occupied with scientific objects, and others, again, because they have taken to different careers. The mean number of deaths was, from 1834 to 1840, 20 per annum; and from 1840 to 1844, only 18. Finally, the number of officers of health is 168; pharmaciens, 326; and midwives, 450. To complete this table, I will add the number of inscriptions, or entries, taken on the 15th of November, 1844, at the Faculty of Medicine, Paris; they amounted to 800; in 1843, they were only 749. Of the 800 inscriptions, 251 were new students, viz: those commencing their medical studies, 199; those coming from the different preparatory schools, 43; those coming from the other faculties, 6.

Med. News, from *Med. Times.*

An easy and certain method of performing Catheterism, even in the most difficult cases. By J. G. Maisonneuve. In the hands of the ablest and most experienced surgeons, catheterism, in cases of retention of urine, is often a difficult and sometimes a dangerous operation, and, in those of an inexperienced surgeon, it is daily a source of serious accidents. Of late, numerous methods have been proposed to facilitate this operation; and Dr. Maisonneuve proposes the following: Introduce into the urethra a very small gum-elastic bougie, and, when it has reached the bladder, slip over it a catheter, open at both ends. The passage of the latter inwards is facilitated by a bit of silk passed through it and then tied to the extremity of the bougie. To cause the catheter to penetrate easily and without pain into the bladder, it is sufficient to push it onwards on the bougie, drawing gently all the time on the silk. This method has succeeded in all the cases in which the author employed it, some of these being very difficult ones; and, from these facts, he concludes: first, that catheterism, performed in the way just described, is, of all the known

methods, the easiest and most certain; second, that it succeeds wherever the other methods are applicable; third, that it succeeds where the others fail; fourth, that it sets aside all painful trials, all ruptures of the canal, all false passages and all the accidents which they give rise to; fifth, that to perform it, no peculiar skill is needed; on the contrary, it may be employed by persons not at all accustomed to such an operation; sixth, that it enables us to set aside the numerous instruments proposed to overcome the different obstacles encountered.—*Ib.*

Baron Larrey's Medical Campaigns.—The Medico-Chirurgical Review, for January, contains a notice of the last published volume of Baron Larrey's Surgical Memoirs, from which we take the following memoranda. They relate to the most distinguished of the patients of that veteran surgeon, and are prefaced by these words:

"The history of their wounds may, I think, occupy a few pages that will prove not without interest or value for the study of those memorable wars which France had to sustain against all the powers of Europe, from 1792 to 1815."

"General Almeras was severely wounded at the battle of the Pyramids. A musket ball traversed the pelvis from before backwards, passing between the testicles, perforating the neck of the urinary bladder, and also the rectum, and escaping from the inner part of the right hip. In spite of the dangerous nature of the wound, this brave officer recovered, and eventually served in the campaigns of Germany, Russia, and France. This case is certainly one of the most remarkable that I ever met with in practice.

"General Andreossy suffered severely from the endemic ophthalmia in Egypt; but recovered perfectly. He died in his native town of Castelnaudari.

"General Arrighi, Duke of Padua, was wounded in the neck by a musket ball at St. Jean d'Acre. The right carotid artery was wounded; and he must inevitably have died of hæmorrhage if a soldier had not had the presence of mind to introduce his two fore-fingers into the wounds, until I arrived and tied the vessel. During the operation, a shell exploded over our heads; but, by a sort of miracle, none of the fragments struck us. The recovery was complete, and the general is still alive.

"Prince Eugene Beauharnais was wounded by a ball in the right temple, at the seventh assault of the same fortress, St. Jean d'Acre. General Bertrand, too, was similarly wounded at the first battle of Aboukir. It was on this occasion that Napoleon first became acquainted with this most faithful and devoted of his servants.

"Marshal Bessieres, Duke of Istria, received a severe contusion of the thigh in the celebrated battle of Wagram; his horse was shot under him at the time. This great warrior was subsequently killed by a cannon ball, while reconnoitring the enemy's lines on the evening before the battle of Lutzen.

"General Blaniac received, at Aboukir, a gun-shot wound in the right side, of the chest. The ball had passed from before backwards, following the direction of the third sternal rib to the seventh, which was fractured in its posterior third; the middle lobe of the lung was injured, and the intercostal artery lacerated. There was a good deal of hæmorrhage from the anterior wound. Symptoms of sanguineous effusion into the chest subsequently occurred, and the operation of *paracentesis thoracis* was performed by enlarging the wound behind. Upwards of a *litre* of dark-colored fluid was discharged. By the most assiduous care, continued for three or four months, this meritorious officer quite recovered his health.

"The only real wound that General Buonaparte (so he is styled here by our author) ever received in his long career of danger, proceeded from a kick of the first Arab horse which he mounted, on leaving the Desert of Lybia. The contusion was followed by an extravasation of blood, to which I gave vent by a small incision. The wound quickly healed. (We have surely read somewhere that Napoleon received, in one of his Austrian campaigns, a contused wound of the leg, that proved, however, to be of no great severity, although great alarm was at first occasioned in the army by the rumor of it.*

General Caffarelli had his right elbow shattered at the siege of St. Jean d'Acre; he was overturned by the blow and fell heavily on his right side. The arm was immediately amputated, and everything went on favorably till the twenty-first day, when symptoms of hepatitis made their appearance. A few days afterwards he died. On dissection, several large abscesses were found in the liver; one of these had burst into

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* At Ratisbon, according to Sir W. Scott, he was struck on the foot by a spent musket ball, which produced only a slight contusion.—*Ed.*

the abdominal cavity. The suppurative inflammation had doubtless been induced by the fall.

"General Champeau was severely wounded by a cannon ball at Waterloo. Before I could reach him, a sudden charge of the English cavalry obliged me to withdraw to a considerable distance; and the poor wounded man, like many others, died on that disastrous field without relief.

"General Cheminau had his right leg disorganized by a cannon-shot, at the battle of Lutzen. Although the injury of the soft parts and bones extended close up to the knee, yet, as the joint itself appeared to be intact, I determined to amputate the limb immediately below it. Having made a flap, I disarticulated the head of the fibula, and sawed the tibia across, directly below the attachment of the capsular ligament. I was then surprised to find that the two condyles of the bones were separated by a vertical fracture; the ligament, however, remained uninjured, and there was no symptom of extravasation within the joint. A uniform and circular compression was maintained around the condyles of the tibia, and the dressing of the stump was finished by the application of my unremovable bandaging. This was not removed for nine days, and then immediately reapplied. The success was complete.

"General Coutel, commanding the company of the æronauts attached to the army of Egypt, and who, by means of ascending in a balloon, had ascertained the position of the enemy's army before the celebrated battle of Fleurus, received a musket ball in his right arm at St. Jean d'Acre. Although the humerus was broken, and the injury of the soft parts severe, I determined to try to save the limb. The ends of the bone did not, however, unite, and a false articulation was formed.

"General Count Daboville, now a peer of France, was wounded most severely in the right shoulder at the terrible battle of Wagram. This was one of the fourteen amputations at the shoulder which I performed on that day! Of these cases, twelve recovered perfectly; one patient was killed accidentally by being thrown out of the *ambulance;* and another died of hæmorrhage during the subsequent evacuation of Vienna.

"General Damas was killed by a cannon-shot which struck his chest, at the battle of Moskowa. He was one of the forty general officers who either fell or were most severely wounded on that dreadful day.

"General Count Danthourd was wounded at the battle of

Pesth (1805) by a musket ball, which, after breaking his spur, doubtless penetrated into his right tarsus, and there lodged deeply. Imagining that his wound was only a flesh one, he applied a piece of wetted rag to his foot, and straightway continued his march to the field of Austerlitz, at the glorious battle of which he was present. His wound healed; and he experienced no inconvenience in the foot until fifteen years afterwards, when he began to feel sharp pains in a tumor as big as an olive, which was situated on the dorsal region of the tarsus. Two of the leading surgeons in Paris considered it to be an exostosis; and the general himself was not aware that any ball had ever lodged in the part. On his showing it to me I soon recognised what it was, and told him how he might get rid of it. The ball on extraction proved to be angular, and was lodged in a fibrous cyst.

"General Desaix was wounded, in one of the combats before the capture of the lines at Weissembourg, by a ball which perforated his left cheek. He was killed at the battle of Marengo, 'dont il fixa la victoire.'

"The Duke Deselignac received a gun-shot wound in the left foot and ankle-joint in the last combat of July, 1830. The limb should unquestionably have been amputated at the time; but this was not done, and, on the seventeenth day after the accident, symptoms of tetanus supervened. On being called into consultation, I recommended that the limb should be amputated; but this proposal was not acceded to by the other surgeons in attendance, who, in consequence of the inflamed state of the leg, dreaded gangrene of the stump coming on. The operation was, however, performed early the next morning. The edges of the wound were simply approximated, and kept so by means of lint smeared with a layer of styrax ointment; this position was facilitated by my having made, during the operation, two perpendicular incisions, one over the crest of the tibia, and the other on the opposite side. *The first dressing was not removed for nine days*, and then the wound was found to be suppurating freely; it was entirely healed by the thirty-first day after the operation.

"General Dulong received a gun-shot wound in the right axilla in the Polish campaign of 1807. The ball had passed through the tendon of the pectoral muscle, and the plexus of nerves, grazing the shoulder joint. Although there was scarcely any hæmorrhage, there was good reason to believe that the axillary artery had been divided. Some years subsequently this officer called upon me for my advice. I then learned that, immediately upon the receipt of the wound, the

extremity had been stricken with a paralytic torpor and a sense of most distressing coldness, and that no pulse could be felt at the wrist. It had been unwisely determined to try to save the limb. The consequence was, that the hand and arm remained quite paralyzed, and became so atrophied as to resemble a part of a mummy rather than of a living man. I recommended him to submit to amputation; but he would not. His infirmities increasing, he committed suicide.

"Marshal Duroc, Duke of Friuli, was wounded in the right groin, by a piece of a shell, at St. Jean d'Acre. At the close of the battle of Wurtschen, 1813, a cannon ball, which had cut the body of General Kirschner (who was riding at his side) in twain, grazed him in the belly. A large portion of the abdominal parietes was carried away, and the bowels wounded in several places. He survived about thirty hours in dreadful agony.

"General Foy was under my care in his last illness, the disease being cancer of the stomach. 'Had his medical attendants made use of the moxa, as I recommended, his life might probably have been saved, as I have succeeded in doing so in not a few cases in private practice.'

"General Baron Ganan was wounded at the battle of Dresden in the occiput. It was necessary to apply the trephine to remove some portions of the depressed bone; ultimately he recovered. 'A phenomenon, little known to medical men, was often noticed by us in this case. When the ear was applied to the cicatrix over the perforation, the *bruissement* of the cerebral arteries was distinctly perceptible; and the general himself could hear the sounds of the voice when directed to the seat of the wound—a circumstance that still continues, and therefore clearly shows that the opening in the cranium is not yet entirely closed.' (Is there anything wonderful in this?)

"Marshal Grouchy received several severe contused wounds in the thighs and legs at the battles of Moskowa and Craoune. In the case of his wife, Madame la Marechale, I excised the left mamma for a cancerous tumor. This lady quite recovered. she subsequently died very suddenly from a sort of spasmodic cholera, or acute neurosis.

"General Kleber received, at the capture of Alexandria, a ball that struck him in the right temple, divided the integuments, and grazed the parietal bone. I dressed the wound at the base of Pompey's Pillar, and he was sent on to Alexandria. He was subsequently killed at the battle of Heliopolis,

where I was exposed to the greatest danger in the discharge of my professional duties.

"Marshal Lannes, Duke of Montebello, was struck by a musket ball, in the right leg, at the battle of Aboukir. Symptoms of tetanus threatened to come on, but were fortunately subdued. He returned with his colleague, Murat, to France, a few weeks after General Buonaparte. He had been wounded also in the temple at the thirteenth assault of St. Jean d'Acre. Some years afterwards he received several wounds in various engagements in Spain. At the famous battle of Essling (1809) his right leg was shattered by a cannon ball, which passed through the knee-joint and wounded the flesh of the left thigh. Immediate amputation was performed by me; and he was sent on to Ebersdorf, where he caught the typhus fever, which prevailed at that time in the army; he died on the thirteenth day after the battle.

"General Lawless—once a professor of physiology in Dublin, who commanded the third foreign regiment, consisting almost entirely of Irishmen—had his left leg shot away by a cannon ball at Lovemberg, on the frontiers of Bohemia. I amputated the limb immediately below the head of the tibia; and, as the army were retreating back upon Dresden at this time, I advised my patient to ride direct to his own home in France, without doing anything to the dressings of his wound, except sponging their surface daily, and keeping the stump enveloped in a piece of linen cloth, or a sheep's skin. By following my directions, he rode on horseback the entire distance from the scene of action to his residence in Tours, having his stump all the while suspended by a belt that passed over his shoulders, and without having it dressed once. On removing the apparatus, when he reached his journey's end, the wound was nearly healed. As a mark of his gratitude, the general made me a present of a magnificent English engraving of Hunter.

"Baron Menou, the third in command of the Egyptian army, was seized with a sporadic plague, just before our debarkation to France; already there were three carbuncles on the right leg, and an incipient one had appeared in the right groin. Unwilling to make the captain of the English frigate (Dido)—which was to convey us home—acquainted with the real facts, I had the general strictly confined to his own cabin, and I then excised the carbuncles,* administering internally camphor,

* This appears to us very extraordinary practice; and yet the baron continued in after life to be so convinced of its propriety—as we have seen

nitre, bark, and laudanum. The wounds suppurated freely, before they healed. He was completely cured when we reached Toulon.

"General Viscount Mermet, in consequence of a fall upon his loins in one of the last actions in Italy under Prince Eugene, became entirely paraplegic; the palsy being accompanied with incontinence of the urine. Cupping in the first instance, and subsequently the repeated (twenty times) application of moxas restored him to perfect health, so that he was able to resume active service.

"General Mireur, after having been wounded in the right shoulder at the glorious battle of the Pyramids, was murdered a few days afterwards by the Arabs, while conveying the orders from Buonaparte to Admiral Brueys, to weigh anchor and proceed direct to Corfu, for the purpose of taking in fresh troops and bringing them to Egypt. The death of this young officer was the cause of the destruction of our fleet at Aboukir, and of our subsequent loss not only of Malta, but also of Egypt, which would otherwise have become one of the richest and most beautiful of French colonies.

"Marshal Moncey, Duke of Cornegliano, became affected, in 1830, with an enormous hydrocele. I performed an operation and effected a radical cure.

"General Netherwoot, in one of the combats in Syria, received, from the hands of one of the Mamelukes, a sabre-cut in the right thigh; the entire thickness of the extensor muscles was divided down to the bone, and even this was deeply notched. The wound was very large as well as deep. While one of my assistants kept the limb completely extended, I passed ten stitches from the bottom of the wound through the flesh and integuments, so that the edges might be retained in exact apposition throughout the entire depth. After being bandaged, the limb was placed in a fracture-box, and maintained in a state of extension. This excellent officer was subsequently killed in the expedition to St. Domingo.

"General Count Pajol was wounded in the left fore-arm at the battle of Moskowa. As both bones were broken, and the soft parts much injured, many surgeons would unquestionably have recommended immediate amputation; but I determined to try to save the limb. After having freely *debridé* the wound, and removed all the fragments of bones, I brought the edges together, and applied my apparatus, which I rendered immo-

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in a preceding page—he actually recommended its adoption to the physicians in Dublin.

vable, the fore-arm being kept bent and suspended in a sling. This distinguished warrior accompanied the march of the troops during the dreadful retreat from Russia; and, althongh the wound was not dressed above five or six times, it eventually cicatrized completely, without the movements of the limb being at all impeded.

"General Silly was wounded by a cannon ball in the right knee, at the second battle of Aboukir. I had scarcely completed the amputation of the limb, when a charge of the English cavalry came down upon us. I took the wounded man upon my shoulders, and carried him along a very uneven road to the rear-guard of our army. I arrived at Alexandria with my honorable burden, and had the satisfaction there of completing the cure.

"Marshal Soult was never dressed by me on the field of battle; but I attended him in Paris for a severe contusion of the leg, which had been fractured. A traumatic sanguineous tumor supervened; this required a delicate operation should be performed. The success was complete, and my illustrious patent speedily recovered.

"Marshal Suchet, Duke of Albufera, on returning from his most arduous campaigns in Spain, consulted me for a cancerous affection of the stomach, the precursory symptoms of which had already appeared. The disease, although it had been very sensibly arrested, finally proved fatal.

"Marshal Victor, Duke of Belluno, was wounded in the right thigh at the battle of Craoune, (1814.) The ball had passed between the femur and the femoral artery, which I found to be partly denuded; the sciatic nerve was injured. The two wounds were immediately 'debridés,' and subsequently dressed after my usual plan. The marshal continued to suffer from a traumatic neuralgia to the end of his life, in spite of every remedy that was tried.

"General Zayonchek, seventy-five years old, was wounded in the knee at the passage of the Beresina. The wound required the amputation of the limb. I performed the operation under the cannon of the enemy, and while there was a very heavy fall of snow. To prevent my being incommoded by 'ce meteore,' two general officers held the patient's cloak over our heads. He returned to Warsaw, his native place, and finally recovered. He was subsequently made a prince, and the viceroy of Poland, by Emperor Alexander. He died at the advanced age of eighty-six years."

Treatment of the Itch in Belgium.—The following circular has been addressed to military surgeons by the inspector-general of the Belgian army:

Each patient is to be supplied with an ounce or an ounce and a half of liquid sulphuret of lime in a small pot; this quantity he is to rub carefully and slowly with his hands on every part that is covered with papulæ. If there be any papulæ on the back, another patient is to rub the liquid upon that part. The operation is to be repeated three times in the twenty-four hours; so that each patient consumes three or four ounces of the sulphuret daily. A bath is to be taken every alternate day; the frictions are to be suspended on that day. Fifteen frictions (or ten days' use) are usually sufficient for the cure of the disease, if the medical officer in charge sees that the remedy is properly used.

The sulphuret is prepared thus: take of sublimed sulphur 16 pounds, and of quick lime 32 pounds; boil in 80 pounds of water for three-quarters of an hour. Let the mixture rest for some time until it settles, and then let the clear fluid be decanted off. Boil the residue again in about the same quantity of water, treat it in a similar manner, and add this decoction to the first. Usually 140 pounds of the sulphuret, at 12° by the areometer, are thus obtained. If the liquid be more dense it should be lowered to this standard by the addition of rain water.—*Braithwaite's Retrospect of Practical Med. and Surg.*

Pills of Iodide of Iron.—Dr. Christison recommends the following simple method of preparing these pills, which was communicated to him by Mr. Robert Leslie, late apothecary in the Royal Infirmary of Glasgow. Take of iodine 127 grs., iron wire about the thickness of a thin quill, half an ounce, distilled water 75 minims. Agitate them briskly together in a strong ounce phial, provided with a well-fitted glass stopper, until the froth which forms becomes white, which will happen in less than ten minutes. Pour the liquid upon two drachms of finely-powdered loaf-sugar in a little mortar, and triturate immediately and briskly for a few minutes; add gradually a mixture of the following powders, viz: liquorice powder half an ounce, powder of gum arabic a drachm and a half, and flour one drachm. Divide the mass into 144 pills.

Each pill contains about a grain of iodide of iron. The only alteration I have made in Mr. Leslie's formula, is the substitution of coarse for fine iron wire; first, because less

heat is produced; and secondly, because the resulting solution is more easily poured off.

In operations on the large scale, the bottle ought to be wrapped in a strong towel, in case of an explosion being caused by the evolution of steam from the heat produced; and even on the small scale, the stopper must be held firmly, otherwise it will probably be blown out, and the materials lost.

After all that has been recently written on the action of sugar in preventing the proto-salts of iron from alteration under exposure to the air, it is unnecessary to point out the reason why these pills keep remarkably well. With the *syrupus iodidi ferri* of the last Edinburgh Pharmacopœia, and this *pilula iodidi ferri*, it appears to me that every other pharceutic form of the salt may be dispensed with.—*Pharm. Trans.*

Squill.—Squill obviates some of the ill effects of opium. If an aperient be added besides, the good effects of opium may often be obtained when it would otherwise be inadmissible.

℞ Pulv. opii; pulv. scillæ, aa gr. iii.; aloes; conservæ rosæ, aa gr. ix. Fiat mass. divid. in pill. vi. æquales. Sign, opiate pills, two at bed-time.

We have remarked very beneficial results in cases of chronic ill health with tendency to dryness of the skin, from the continued use of such combinations as the following. Besides its diaphoretic effect, it should be regarded as alterative.

℞ Resinæ guaiaci; extract. gentianæ, aa ʒi.; pulv. ipecacuanhæ, gr. xv. Ft. mass. divid. in pill. xxx. æquales. Sign, tonic alterative pills, two twice a day.

Or, if an aperient be required, aloes may be substituted for the gentian, and then the combination will somewhat resemble the pulv. aloes comp. of the London Pharmacopœia.

A simple and very effectual treatment of the less severe bowel complaints, so apt to prevail at this season, is the following:

℞ Sulph. magnesiæ, ℥ss; aquæ menthæ, ℥vi. Solve. Sign, a wine-glassful to be used at intervals of an hour, till the bowels have been distinctly acted on by the medicine, and then a pill containing one grain of opium is to be taken.

Even where the pain is considerable, and the case threatens to be severe, this simple plan often succeeds.

Northern Journal of Medicine, October, 1844.

Artificial Dilatation of the Os Uteri. By John Breen, M.D., formerly Assistant Physician to the Lying-in Hospital, Dublin. The late Dr. Hamilton, it is well known, stated that by securing the completion of the first stage of labour within twelve or fourteen hours, no patient under his charge for the thirty-five years antecedent to his publication, had been above twenty-four hours in labour, and, except in cases of disproportion, none so long. We are convinced that the practice of Dr. Hamilton, supported, as it now is, by the experience of many eminent and practical men, has been too long neglected; and we are happy in having the opportunity of publishing the experience of Dr. Breen on this subject. We think, in cases of tedious labour, where the great impediment to the completion of the process is the undilated state of the os uteri, that cautious and very gradual artificial dilatation is perfectly safe and will save the patient many hours of unnecessary pain. Most of our readers will be aware of the mode adopted by Dr. Hamilton and Mr. Burns for this purpose. Dr. Breen's method is as follows. He says:

I think artificial dilatation should not be attempted for at least ten hours after the real commencement of labour, no matter what the duration of spurious labour may have previously been. When this measure is called for the membranes will be usually found ruptured, but not universally so. Two fingers are to be introduced, either between the os uteri and unruptured membranes, or, if ruptured, between the os and presenting part of the child. The fingers are to be used either for the purpose of dilatation or as a wedge, to resist the coming down of a flap of the cervix of that viscus. Above all things it is to be particularly kept in mind that the fingers are to be quiescent except during a pain, and to be used only during the most severe portion of this action. By thus proceeding no additional suffering will be caused to the patient. About two hours will usually be found sufficient to obliterate the undilated cervix, but the attendant need not be anxious to complete this measure within so short a time. He may occasionally cease from his trials and watch what nature may be capable of effecting. By following these rules we avoid the risk of encountering the tendency to inflammatory action, which is always to be dreaded when severe labour is complicated with a long duration of that process. When first I read Mr. Burns's opinions on this subject, now many years back, I was surprised that he did not recommend artificial dilatation to be preceded by blood-letting. This measure, though not contra-indicated, will generally be found unnecessary. In

thus bringing the presentation to act on the perineum within the first twenty hours of labour, or generally a shorter period, we secure such a portion of uterine action to be directed to the dilatation of this part, as, if it does not absolutely terminate the expulsion of the child before danger impends, from the protection of parturition, will render instruments compatible with the mother's and child's safety applicable. Sufficient materials exist to prove that the following of the practice advocated by Professor Hamilton, and supported in this essay, will not render obstetric practice either too artificial or meddlesome. For though nature has carefully provided a set of organs for the continuance of the human species, and for the safety of this process, yet, in a certain number of cases, all agree that artificial interference of some kind becomes absolutely necessary. Though it be true that the decree has gone forth that the woman in sorrow shall bring forth children, this is no reason why the obstetrican should not resort to the aid of art, guided by science and experience, to alleviate the suffering of his patient.

I acknowledge I am sanguine enough to expect that the practice of widwifery is capable of being so far improved that the perforator will not be used in cases uncomplicated with obstetric casualties, such as deficiency of space in the pelvis, convulsions, &c., or in cases where the prolapsus of the umbilical cord, joined with a cessation of its pulsation and other certain indications of the child's death, remove all moral objection to this always uncomfortable measure to the conscientious practitioner. In fine, I would appeal to the best informed obstetrician if ever, in the most remote vista of future improvement, he perceives any probability of banishing from practice what, in a former part of this paper, I have called the *opprobrium obstetricorum*, except through the adoption of Mr. Burns's and Professor Hamilton's mode of acting in labour likely to be tedious. No person can doubt that I have added to the Edinburgh professor's authority additional facts bearing on the subject, and supporting the safety of the practice. Let no practitioner, on merely speculative grounds, reject a mode of conducting a labour which mitigates the sufferings of his patient, and much lessens the danger of inflammatory action or debility succeeding parturition—the first rendering the use of every instrumental aid dangerous, and the second very generally proving fatal.—*Lancet.*

THE WESTERN JOURNAL.

NEW SERIES.—VOL. IV.—NO. IV.

LOUISVILLE, APRIL 1, 1845.

LECTURES ON GEOLOGY.

We were very much interested in a course of lectures on Geology, delivered in this city, during the last month, by Byrem Lawrence, Esq. Mr. Lawrence is a practical geologist, who has explored a large portion of our country for himself, and describes things as they have presented themselves to his own eyes. In the course of the last five years he has traveled 18,000 miles in prosecuting his researches, 8,000 of which he performed on foot. As the reader would infer from this statement, he is an enthusiast in the cause, and with his fine athletic frame in the full vigor of manhood, and a mind capable at once of close, patient observation, and of the most enlarged generalizations, he promises to become a successful and distinguished laborer in this interesting field. What he has observed he describes in a plain, forcible manner, and illustrates his descriptions by a map in which the various formations are so exhibited that his hearers have no difficulty in comprehending the subject.

We have written this notice with the view of calling the attention of our readers to Mr. Lawrence, some of whom, as he is passing through the country, may have an opportunity of hearing him lecture

on this most attractive science. Classes ought to be formed for him in every town to which he goes. The information he imparts on points of the most intense interest, great as it is, is the least valuable feature in his lectures: they are calculated beyond anything we have heard, to set men about observing the wonderful things connected with our earth's structure, and to inspire a taste for this noble study.

Y.

COMMENCEMENT IN THE MEDICAL INSTITUTE.

The Catalogue of Graduates in the Medical Institute of Louisville was appended to our March number, from which it was seen that the degree of M.D., in ordinary, was conferred upon seventy-one gentlemen, the honorary degree upon three, and the degree *ad eundem* upon three. This indicates a highly prosperous condition in the school, and yet the number of graduates is hardly as great as might have been expected from a class of two hundred and eighty-six. It will be found that the number of candidates is always smaller, in proportion, in a growing than in a declining school, for the reason that in the former a larger proportion of the class consists of first-course students. Of the gentlemen upon whom the honorary degree was conferred we have the pleasure of a personal acquaintance with two—Dr. Debow, of Hartsville, Tennessee, and Dr. Dawson, of Jamestown, Ohio. The former has distinguished himself by his operations in Surgery, and is well known among his neighbors for his high literary and scientific attainments. The latter has made himself extensively and favorably known by his contributions to the various medical journals of the country.

Y.

MESMERISM.

Miss Martineau's case, copied from the London Lancet in our last number, doubtless attracted the attention of our readers. A case has lately occurred in New York which is exciting a good deal of speculation. It was a surgical operation performed on a young lady, by a young Frenchman, in the "Mesmeric Sleep," and which was first published, we believe, by Mr. N. P. Willis, in the National Intelligencer. Dr. Doane has subsequently reported the case in

the Boston Medical and Surgical Journal. The operation consisted in removing a tumor as large as a "pullet's egg" from the neck, behind the jaw, which was done in two and a half minutes. The patient is said to have "slept profoundly" during the time, and to have manifested no sign of suffering. But the sleep is questioned by some, and the operation is thought to be "trivial to furnish a satisfactory test or proof of insensibility." We copy from the New York Journal of Medicine, the editor of which promises a full detail of the case in his next number. Meantime, he publishes an interesting letter from Professor Paine, giving the particulars of a most painful operation by Professor Mott—the exsection of the inferior maxillary bone—which the subject bore for an hour and a half, without manifesting the "slightest evidence of pain, or of impatience, or of fatigue, by winking, groaning or sighing." This case Professor P. relates as a rebuke to the mesmerite for "his love of the marvellous, or his love of mischief, or his yet more culpable designs on human credulity." Mesmerism he considers "one of the greatest nuisances that has yet infected the moral and reflecting part of the community." Y.

SOMERBY'S CONCENTRATED BLOWPIPE AND FURNACE.

We owe an apology to our friend, Dr. Somerby, for not having sooner noticed his ingenious and valuable invention, which, although designed chiefly for the dentist, is susceptible of being applied to so many purposes that it ought to be made known to all persons who have occasion to use a furnace or a blow-pipe. To the mineralogist and chemist, with slight modifications, this furnace is a machine of the greatest convenience, and to the dentist it strikes us as being invaluable. More soldering can be performed by it in an hour than can be done by the most skilful artist in six hours with the blast produced by his mouth. This is the experience of those who have tried it, and it is further stated on the same authority, that the largest piece of work put up by the dentist can be soldered in one minute, and in a manner superior to any other, the work when finished, presenting the appearance of having been cast in a mould. The furnace is so constructed that its outer surface is not affected by the heat, the varnish remaining uninjured by the most intense heat kept up within for hours together. On this account the instrument pre-

serves its neat and beautiful appearance. There can be no doubt that it will be employed by every dentist in extensive practice, and that it will ultimately find its way into all the laboratories in the country. It is impossible to say how many uses it will serve, in how many processes and experiments it may be made to take part, and how much time and labor it is competent to save. We see that it is warmly commended in the American Journal of Dental Surgery, the highest authority on such subjects. Y.

NEW YORK JOURNAL OF MEDICINE.

This Journal is now under the editorial care of Charles A. Lee, M.D., professor of Pathology and Materia Medica in Geneva College, and favorably known to the profession as editor of several works, to which he has made valuable additions. Dr. Lee is a clear, instructive writer, and discriminating critic, and has the industry and independence requisite to form an able editor. In his hands the New York Journal will maintain the respectable rank to which it rose under the management of the lamented Forry.

Y.

QUACK ADVERTISEMENTS.

The English Evangelical Magazine, for January, contains the following announcement of the proprietors. Will the noble example ever be generally followed? If so, we may hope to see the end of quackery. Quacks live by the newspapers. It is their lying advertisements, stuffed with forged certificates, which give currency to their nostrums. The evil is a monstrous one, but we confess we have but little hope of living to see the day when the pro. proprietors of newspapers shall with one accord set their faces against it.

"We shall cheerfully abandon, in future, the publication of all advertisements of quack medicines, which will be an act of homage to our own taste and judgment, no less than a concession to the strongly expressed opinions of some of our best friends, who, with ourselves, deeply deplore the disease and mortality occasioned by the nostrums of medical quacks, published daily in this great metropolis."

It is not too much to hope that the proprietors of religious journals may soon feel it their duty to take this stand. That would be a good deal gained. Many lives would be saved by it.

Y.

ST. LOUIS MEDICAL AND SURGICAL JOURNAL

We see that our friend, Professor Linton, proposes to enlarge his Journal. We are glad of it. Thus far it has not been what we know he has the power to make it. With ampler room we trust we shall have a more frequent putting forth of those vigorous thoughts which are in him, but which, hitherto, he has kept very much to himself. His third volume will commence with a number of 48 pages in a neat cover. He is to be assissted by Dr. McPheeters, whose talents and devotion to his profession are said to fit him for the task of conducting a journal of medicine. Y.

BRITISH AND FOREIGN MEDICAL REVIEW.

One of the ablest periodicals in our language devoted to medicine is the British and Foreign Medical Review. No other review, we believe, is so often referred to by writers as authority. Its articles are uniformly written with care, and many of them display great ability. The character of the work is fully set forth in the advertisement on the cover of this Journal. We always read it with pleasure and instruction, and can recommend it to our professional brethren as a digest of current medical science and literature equal to any of the day. Few physicians have the ability to take all the excellent periodicals in medicine which it may be desirable to have an opportunity of reading, but we should suppose by a proper understanding among the members of the profession in any neighborhood, or by the formation of clubs, a number might be taken to which all might have access. Besides the numerous journals of our own country, the London Lancet, the Medico-Chirurgical Review, and the work which stands at the head of this paragraph, may all be procured with convenience, and would be read with great advantage by the practitioner. Y.

CHRISTISON ON POISONS.

The first American, from the fourth Edinburgh edition of this unsurpassed work has appeared, in part, in Dr. Bell's Select Medical Library. The part published amounts to 400 pages, and the remainder will follow in a few months, when the American profession will have within their reach the ablest treatise in the English language on the subject of poisons. Y.

PROFESSOR PAINE'S INTRODUCTORY LECTURE.

The war still rages between the vitalists and the chemists, but, it would appear, must soon come to an end, for nearly all the combatants are on one side. Now and then a physiologist may be found hardy enough to deny chemistry all connexion with the phenomena of life—to assert that "the union between the schools of vitalism and chemistry, would be as unnatural as human brains in a block of granite;" but such individuals are rare, and the number is not increasing. Professor Paine, of New York, who devoted his late introductory lecture to the demolition of Liebig's theory of digestion, is one of the few who hold these doctrines, and it is in his lecture that we find the words just quoted. His effort in this lecture is to convict Liebig of self-contradiction, holding with the reviewer of his "Commentaries," that "a writer who can so contradict himself, scarcely needs to be exposed." We must say that we do not consider his effort a successful one. However just the charge of contradicting himself may have been, as made by Carpenter against Paine, and about this we express no opinion, it is not applicable to Liebig. True, that eminent chemist occasionally finds it necessary in the progressive developments of science to change his views, and to give up certain positions which he had previously assumed; but the contradictions of which this lecture professes to make such a display, we are compelled to believe, exist no where but in the imagination of the critic. Not that the language of Liebig is always unambiguous, and may not in places be so interpreted as to make out inconsisteneies; but taken in the sense meant to be conveyed by the author, it teaches a doctrine every where consistent with itself. We have looked in vain through his writings for the passages exhibiting that "medley of contradictions" which Dr. Paine

strives to make appear. Those which he arrays in parallel columns are not contradictory if we give to the words the meaning attached to them by Liebig; and it is in this spirit that every author must be read if we would do him justice, or even understand him.

This lecture is not in good taste. Its tone is extravagant, and sometimes almost acrimonious. The author in the heat of controversy has been betrayed into the use of language which his own deliberate judgment would condemn. In his cooler moments, we are persuaded, he would not charge the chemists with a wish to deceive: with affecting to believe in the existence of a vital principle, but "*in reality*" discarding all but "pure chemistry" from their system of physiology—with throwing out the doctrine of a vital principle "as springes to catch wood-cocks," or as "a tub to the whale." Neither would he be guilty of the offence of applying to the doctrines of the chemists the term "stultifying." He would feel that there was no force in arguments consisting of abusive epithets, but that in the use of such weapons as these a philosopher would find his match in a very stupid antagonist.

Animal chemistry has nothing to fear from such attacks as those of which the one made upon it in this lecture is a sample. They may mistify or mislead the minds of a few medical students, but that is all the mischief they will do. Y.

MEDICAL CLASSES.

The following particulars of the number of students at several eastern medical schools during the past winter we derive from the Medical Examiner: viz—

University of Pennsylvania,	446
College of Physicians and Surgeons, New York,	190
Geneva College,	183
Harvard University, Boston,	157
Berkshire Medical Institution,	145

From the published catalogue of the Jefferson Medical College we learn that the number in that institution was 409. Deducting from this, 60 M.D.'s, the number of students, or undergraduates, left is 349. As we have not yet seen the catalogue of the University of Pennsylvania we are not informed how many graduates were

in that class. The catalogue of Transylvania University shows 156 names. In this list there are 7 M.D.s, to which another ought to have been added, but, through mistake, no doubt, the title was not appended to the name of S. N. McMinn, a graduate, and he appears among the "practitioners." These 8 subtracted will leave 148 as the number of students, which does not vary from our statement made some months ago. Y.

BOOKS RECEIVED.

The Cyclopædia of Practical Medicine is completed, and is already on sale in some of the bookstores in four large volumes. Those who have not subscribed for the work have now the opportunity of getting it entire. It is what it claims to be, a cyclopædia, in which practical medicine is posted up to the present day, and as such constitutes a store-house of medical knowledge upon which the student and practitioner may draw with equal advantage.

We have received only the first number of Copland's Dictionary. We hope the publication has not been suspended.

We are indebted to Professor Spencer, of Geneva College, for a copy of his lecture on Animal Heat, in a well printed little volume of 114 pages. We shall take great pleasure in presenting to our readers an analysis of these lectures in some future number. Y.

LOUISVILLE SUMMER SCHOOL OF MEDICINE.

The course commenced in this school on the last Monday in March to an increased class. There is manifestly a growing disposition on the part of medical students to remain in the city during the summer, and large classes will reward the efforts of the gentlemen connected with the Summer School if they persevere in the enterprise for a few years. It may be permitted us to say, that the junior members of the association are reaping a valuable reward in the reputation which they are acquiring from their labors. They are acquitting themselves most creditably, and affording in their lectures proof of talents which will make them distinguished teachers.

Y.

THE

WESTERN JOURNAL

OF

MEDICINE AND SURGERY.

MAY, 1845.

ART. I.—*Lectures on Physical Diagnosis.* By J. R. BUCK, M.D., Lecturer on the Theory and Practice of Medicine in the Louisville Summer School of Medicine.

LECTURE SECOND.

Before proceeding to a description of the physical signs of disease as derived from the conformation of the chest, or inspection, auscultation, and percussion, it will be proper to refer briefly to certain rules to be observed in the application of these different means of diagnosis.

1st. Inspection:—To inspect the chest to the best advantage, the patient should be in the erect position, arms hanging loosely by the side, and the chest entirely bare. It is customary with many physicians to make all examinations of this cavity through a thin garment. This, in the female, is to prevent exposure, and in the male to prevent the physician's face, in auscultating, from coming in contact with the filthy

bodies of his patients. I have seen practitioners use for this purpose a silk handkerchief. To the use of any garment in inspection of the chest there is an insurmountable objection; it is not only necessary to examine its general conformation, but also the condition of each particular region: a garment however thin spread over the chest would only come in contact with the most projecting points, while the limited contractions or depressions, would entirely escape observation. From the condition of the intercostal spaces, we are sometimes enabled to distinguish between diseases of the thoracic cavity: if for example, with a certain group of physical signs, the intercostal spaces on one side, are bulging, beyond the level of the ribs, the disease is seated in the pleural cavity, either hydro-thorax or emphysema; but if with the same group of signs, these spaces be entirely natural, corresponding on the two sides, then the disease is confined to the substance of the lungs. The whole chest then, being entirely exposed, the physician can take in at a glance both sides, comparing the projections and depressions upon one side with the corresponding points upon the opposite side. The patient should be directed to take a deep inspiration, and then to breathe rapidly that the mobility of the chest may be tested also. In certain diseases patients breathe almost exclusively with the diaphragm and abdominal muscles, while in certain other diseases the respiratory movement is performed alone by the ribs. Any bending of the body either to the one side or the other, would interfere with the examination.

Percussion.—If the patient is unable to sit erect, care should be taken to have every thing moved from around the body, that would tend to obscure the sound; the bed-clothes must be removed; the body does not sink down in a matress as it does in a feather bed—the former is therefore preferable.

Percussion is divided into mediate and immediate; by mediate percussion is meant, striking the body through the medium of some instrument, which instrument is called a pleximeter; by immediate, striking directly upon the body

with the fingers; the latter mode is never practised at the present day. The physician should so place himself that all his movements will be perfectly free, then adjusting the pleximeter accurately to the surface so that every part of it will be in contact with the body, it should be struck two or three times in rapid succession; by suffering the fingers to remain in contact with the instrument, the sound is obscured; the stroke should be given perpendicularly, and with the ends of the fingers. Percussion should be made alternately on the two sides, from the apex to the base of the chest, that you may have the advantage of comparison. The force to be used will depend upon the degree of muscular and adipose development over the organs to be examined; posteriorly it must be much more forcible than elsewhere, in consequence of the dense muscles and bone through which the sound must pass; a slight stroke would only elicit the dull sound of the muscles and bones, while a harder stroke would elicit a clear resonant sound from the organs within the cavity; in front, percussion must be a little more forcible in the precordial region where the lungs overlap the heart than elsewhere. It need never be sufficiently forcible to give pain.

Auscultation.—In auscultating the anterior portion of the chest, the body must be erect with the shoulders and arms thrown back, so that the muscles may be rendered tense and therefore better conductors of sound; in percussion, the soft parts may be pushed aside by the pleximeter, so that nothing but the integuments intervene between the instrument and the bony walls of the chest. In examining posteriorly and laterally, the position recommended in percussion is most favorable. The position of the patient is not more important than that of the physician; if he has to stoop with his head lower than his body, or bend over the patient in bed, the rush of blood to the head, or the irregular muscular contractions will produce certain sounds that may be confounded with those formed in the chest.

Auscultation like percussion is divided into mediate and immediate; mediate is the application of the ear through some

medium to the body. Immediate is its direct application. The medium more generally employed is a small trumpet-shaped tube made of some light wood, called a stethescope. This mode is greatly preferable to immediate auscultation; 1st. That in applying the ear directly, the whole side of the face is brought in contact with the patient's body, and the hair rubbing against the body causes a friction sound not unlike those occasionally formed in the lungs. 2d. In the examination of negroes or of filthy whites, the direct application of the face would be very unpleasant. 3d. In the examination of females it is not practicable thus to apply the ear, for even if not restrained by feelings of delicacy the mammary glands would prevent it; by using the stethescope, however, these can be pushed aside, so as to allow the mouth of the instrument to be brought in contact with the walls of the chest proper; and lastly, *cæteris paribus*, the sound is rendered more intense, a larger number of vibrations are collected in the expanded extremity of the instrument and conveyed in a condensed form through the narrow extremity into the ear.

The instrument held between the thumb and middle finger so that they will at the same time be in contact with the chest, must be accurately adjusted. No opening must be allowed to exist between the mouth of the stethescope and the body of the patient; the sounds would not only escape, but extraneous sounds would be admitted. Then, having the ear-piece accurately adjusted to the ear, the auscultator must concentrate his whole attention upon the sounds.

Having now described the characters of the healthy sounds of respiration and the manner of examining the chest by inspection, auscultation, and percussion, I come next to speak of those sounds which are produced by disease.

In the study of the morbid respiratory sounds, those cases are preferable which present these sounds in the widest deviation from their normal characters; thus in the advanced stage of phthisis, in extensive and acute pneumonia, in pleurisy, with large deposition of lymph, and in acute and severe

bronchitis, you have a group of symptoms so intense, that they can be distinctly heard by one who would fail entirely to appreciate the slighter alterations from the healthy state; still in describing these alterations I shall commence with the slightest.

The healthy respiratory sounds may either be altered in degree or changed in character by disease. In pneumonia a part of the lung being impervious to the air, the remaining portion compensates for it by taking on increased action; hence the sounds are louder in the healthy part, than they were previous to the attack of pneumonia; the same is true in regard to tubercular disease of the lungs, pleuritic effusions, in a word, to all diseases that impair the functions of any part of the lungs. If the disease be very extensive, this increased intensity may amount to the puerile respiration, a variety, as you know, healthy in the infant but diseased in the adult. The respiratory sounds are also diminished by disease; but this never occurs without an alteration in the relative loudness of the blowing and vesicular sounds. I am well aware that this opinion is at variance with the writers upon this subject, who teach that both sounds are lessened, equally, in emphysema of the lungs, and in pleuritic effusions. A moment's reference, however, to the anatomical structure of the lungs, will show the erroneousness of this opinion. The external or vesicular portion of the lung in which the vesicular murmur has its seat, is much more compressible than the internal or bronchial portion, where the blowing sound is formed; hence in emphysema, hydro-thorax, &c., the second sound is often obliterated entirely, while the first is heard distinctly, which certainly indicates that there is from the commencement of this effusion to the obliteration of the vesicles, a disproportion between the alterations in the two sounds. In emphysema, the disease is confined almost exclusively to the vesicles of the lungs, these are distended and relaxed; any alteration, therefore, in the respiratory sounds must be confined to that element which is formed in this diseased portion. While in emphysema then, the vesicular murmur is

not heard at all, the blowing sound is but little if at all changed. In that variety of emphysema common to old persons, the blowing sound is also very materially enfeebled, but this is doubtless owing to that general decay which is taking place in all the organs of the body, and the consequent diminished energy of their functions. Another class of alterations consist essentially in a want of proportion between the blowing and vesicular sounds; in this class are embraced rude respiration, bronchial respiration, tubal respiration, and cavernous respiration: another variety has been described, called the amphoric; this is but a variety of the cavernous, however, and may come very properly under that head.

Rude Respiration.—This consists in a feebleness of the vesicular murmur, with a slightly increased loudness of the blowing sound—both in inspiration and expiration—it occurs in consequence of the partial obliteration of the vesicular structure of the lung; in phthisis, for example, the tubercular deposit is at first very slight, causing a partial compression of the minute tubes and vesicles. The sound is therefore less in this compressed portion than natural, while the adjacent bronchial portion acts a little more energetically to compensate for the diminution in the compressed part; the bronchial or blowing sound is also increased from the tubercular deposit being a better conductor of sound than the healthy pulmonary structure.

Bronchial Respiration.—When the deposit increases so as to obliterate the vesicular portion of the lung entirely, the blowing sound is still farther increased, while the vesicular murmur is absent of course. The respiration being confined entirely to the bronchial tubes, is called bronchial respiration; any disease that will obstruct the passage of air into the vesicular portion of the lung will cause this sound.

Tubal Respiration.—This is a sound almost peculiar to pneumonia; it is heard when a large portion of the lung, including some of the larger bronchial tubes, is in a state of solidification. The only sound heard is that made by the passage of air through these tubes, the walls of which are

solid and unyielding, it resembles that made by the blowing into a flute with all the holes closed, or into any other solid tube.

Cavernous Respiration.—As the name implies, this sound is formed in a cavity or cavern in the lungs, it is therefore almost peculiar to phthisis, although it may sometimes occur in pneumonia; here also the second sound is absent, while the first is very much changed in character. It resembles the sound made by blowing into a narrow necked vessel, the neck represented by the bronchial tube and the body by the cavern; the character of the sound is little changed with the size of the cavern, which has caused the addition of another sound before alluded to. To the production of the cavernous respiration it is essential that there be free communication with the bronchial tube, and that the cavity be empty. It is generally heard at the summit of the lungs—this being the point where tubercular deposit first occurs. This sound bears some resemblance to that last described; they can generally be distinguished by their locality. The tubal respiration always occurs over the region of the larger bronchial tubes, while, as before stated, the summit is the usual seat of the cavernous. Again, the tubal is heard over a much larger surface; the cavernous being in all cases limited to the part directly over the cavity.

Rhonchi.—The sounds which we have just described involve necessarily some change in the substance of the lung, while the rhonchi, with but one exception, depend upon disease in the mucous membrane lining the air passages. These sounds are much more easily distinguished than those which depend alone upon alteration in the natural respiratory sound. The rhonchi, rales or rattles, for these terms I shall use indifferently, are divided into the dry rhonchi, and the humid or wet rhonchi. The dry rhonchi are formed by the passage of air through the bronchial tubes in a state of inflammation, or when the mucous membrane is thickened, or coated by thick tenacious mucus, which is not dislodged during respiration;

under this head there are two varieties, the sonorous rhonchus and the si blant rhonchus.

The sonorous rhonchus is produced by the friction of the air against the mucous membrane in a state of congestion and dryness; there are two conditions necessary to the production of this sound—diminution in the caliber of the tubes, and roughening of their surfaces. These conditions alalways exist in the first stage of acute bronchitis, in chronic bronchitis, when the lining membrane is thickened by deposits of lymph beneath it, and in sôme rare cases when the expectoration is so viscid as to adhere firmly to the sides of the tubes. This sound has been compared to the cooing of a dove, hence it is sometimes called the cooing sound; it resembles also very much the clear ringing noise made in snoring. It is formed in the larger bronchial tubes, and is heard both in inspiration and expiration.

Sibilant Rhonchus.—This only differs from the other in degree, it is a sharper, shriller sound, resembling a low whistle, and is formed in the smaller bronchial tubes, in the first stage of inflammation. The next rhonchi are formed by the passage. of air through the bronchial tubes containing some fluid. They consist in the cavernous rhonchus, the mucous sub-crepitant, and crepitant.

The *Cavernous Rhonchus*, like the cavernous respiration, is formed in a cavity; but to produce the first, the cavern must be empty and to produce the last it must contain a fluid. This sound is sometimes called gurgling from its peculiar character; the word will give some idea of the sound. In almost all cases it occurs in cavities from tubercular excavations; hence its usual seat is in the summit of the lungs. It is caused by the passage of air through a thick homogeneous mass, in a circumscribed cavern.

Mucous Rhonchus.—This rhonchus is characterized by an irregular bubbling sound; when we blow through any hollow tube into a liquid, bubbles are produced, and the breaking of these bubbles is attended with a slight noise. The character of this noise will vary with the consistence of the liquid. In

bronchitis when the inflammation is recent and not intense, a thin watery mucus is secreted; as it advances the fluid becomes whitish, opaque, and a little more tenacious; and still later it is much more tenacious and of a yellow color; the air passing through these different fluids, causes a succession of irregular bubbles extending over a very considerable surface, called the mucous rhonchus.

The *Sub-Crepitant* bears the same relation to this sound that the sibilant rhonchus does to the sonorous. It is formed in the smaller bronchial tubes and only differs from the mucous in degree. The bubbles are rather sharper; it requires a very practiced ear to distinguish between them.

Crepitant Rhonchus.—This sound is peculiar to pneumonia; it is formed by the passage of air through the minute tubes and vesicles of the lungs containing viscid mucus; it has been compared to the sound made by rubbing a lock of hair between the fingers close to the ear, or to the crackling of salt when thrown upon hot coals. It is generally mentioned as peculiar to the first stage; it may however be heard in the second or third stages, in the second or hepatizdd stage, this sound ceases where it was originally heard, but the presence of the diseased mass excites inflammation in the surrounding tissue, and in this the crepitation may be heard. The metallic tinkling or new-leather or creaking sound, does not come properly under the heads mentioned. The metallic tinkling is formed in a large cavity containing both air and liquid, and having also a communication with the external atmosphere. It may be produced in three ways; 1st, by a drop falling from the top of the cavity into the liquid beneath; 2d, by decomposition and disengagement of gas in the portion of the cavity beneath the liquid; and lastly, the air passing through a bronchial tube into this cavity below the level of the liquid.

Voice.—If the ear be applied to the chest of a healthy person while speaking, a confused roaring sound is heard; this is equal at all points, save the summit of the right lung, where

it is naturally slightly louder than elsewhere, owing to the anatomical arrangement of the bronchi.

If the lungs become solidified at any point, the voice is much more distinctly heard there, as it is then a much better conductor of sound than in a healthy state when almost the entire bulk is made up of air. When tubercles are first deposited, a slightly increased loudness or resonance of the voice is heard at the point of deposite. This increase is not very great, however, as the solid matter is small, and the air still enters the minute bronchial tubes around which it exists.

If the solid matter exists in sufficient quantity to obliterate entirely the vesicular portion of the lungs, as in the more advanced stages of phthisis, or in pneumonia, &c., then this alteration in the voice is very great, and is called bronchophony.

If a cavity exists in the lungs lined by a false membrane, and empty, not only is the intensity of the voice very great, but the articulation is also quite distinct; the sound seems in this case to come directly from the chest into the ear, as though one spoke into the mouth of the stethescope, while applied to the ear. It is called pectoriloquy. While the presence of this sound always indicates the existence of a cavity, its absence by no means proves that one does not exist, for if it contains mucus or pus, or broken down tubercular matter, pectoriloquy is not heard.

A circumscribed dilatation of the larger bronchial tubes may emit a sound very similar to this, but they may generally be distinguised by the locality. Pectoriloquy being heard almost uniformly at the summit of the lungs, where tuberculous excavations usually occur, while the sound emitted by a dilated bronchus would only be heard in the region of these tubes.

Amphoric resonance has been applied to an indistinct pectoriloquy extending over a larger surface, and formed by the excavation of an entire lobe of the lungs.

I shall notice but one other alteration of the voice—egophony. This is a tremulous vibratory sound, formed by the passage of the voice through a thin stratum of liquid, and is therefore heard in the first stage of pleuritic effusion.

ART. II.—*On the Use of Mercury in the Treatment of Southern Fevers.* By LAFAYETTE CARR, M. D., of Aberdeen, Mississippi.*

There is perhaps no subject connected with practical medicine upon which the sentiments of physicians are undergoing a more rational change than the exhibition of mercury in our Southern fevers. If the fact were not so I should probably incur the charge of presumption in expressing some of the opinions contained in this essay. I do not mean, however, to exclaim against the judicious employment of the remedy, for none can be more fully impressed with a sense of its utility when used with proper discretion, than I am. But my design is simply to point out the circumstances which, as I conceive, render its use improper, and likewise to show in what manner it has been abused. It cannot be denied that to meet certain indications in the treatment of fever, mercury is an admirable remedy. This is a fact which the experience of every day in practice confirms; while it is equally plain that its exhibition under other circumstances is preposterous and calculated to do mischief. In those cases of fever that seem to depend on torpor of the secretory organs alone, nothing can be more admirable than the action of calomel or blue mass in exciting them to a healthy exercise

* The author of the following Essay has been engaged for several years in the practice of physic in Mississippi, and his experience in the use of mercury in the fevers of that region was embodied in an inaugural dissertation submitted to the Managers and Faculty of the Medical Institute of Louisville for the degree of doctor of medicine.—EDS.

of their functions, and whenever we find suppressed secretion unconnected with excessive excitement, we may confidently expect beneficial effects from its operation. But such is not very often the case in our climate, for here we scarcely see a case in which suppressed secretion is unconnected with excessive excitement either local or general, and either the one or the other of these circumstances, I apprehend, may constitute an objection to its employment. For it has appeared to me that much of the inordinate action of the medicine is produced by the inflammatory nature of our fevers; consequently the propriety of using mercury in their treatment previous to depletion, is at least questionable. It is customary to prescribe mercury as well in excessive excitement of the secretory organs as in torpor of those organs, but this practice is of exceedingly doubtful propriety. Indeed, it seems to me an absurdity to employ the same agent to meet such opposite indications in practice. True, by its secondary operation as an evacuant, it will sometimes answer our expectations, but these are cases in which the excess of local action is not very great, or is unaccompanied by that disposition to inflammatory action in the system at large, which usually marks our fevers. They are therefore to be regarded as an exception to the general rule, and in most of these cases perhaps a sufficient impression could be made on the secretions and our purpose fully answered by the exhibition of some of the milder cathartics. For we should not limit our views of the operation of mercury to its action upon the secretions alone, but bear in mind that it is a stimulant which affects every fibre of the system; and one thing has impressed me with the force of truth, that when mercury is given in the commencement of our fevers without previous depletion as a preliminary step, it will generally do harm. It is too common to prescribe mercury to restore the secretions without a due consideration of the circumstances attending their suppression; and whenever this course is pursued in the commencement of our fevers, it will most commonly be attended with disagreeable results. So far from restoring the secretions when

given in cases marked by excessive excitement, it commonly deranges them still more materially by increasing the general excitement, and often by the development of excessive local irritation in the organs upon which it specifically acts. These diseases appear to throw the system into that state of morbid irritation that is peculiarly favorable to the development of inflammatory action, which action, mercury by its universally stimulating effects rarely fails to produce, and being generally accompanied with a preponderance of morbid action in one particular part, the whole irritating effects of the remedy are diverted to that part, and thus the disposition of the disease to locate itself is confirmed. We often see fevers wherein the liver appears to be already in a state of great irritation with a superabundant secretion of bile, and in such fevers nothing is more common than to prescribe calomel forthwith, and without a more attentive examination of the case. At our next visit, perhaps, we shall find the system thrown into the most violent commotion; the skin and conjunctiva become icterode, copious discharges of vitiated bile take place by stool, and yet the fever and sufferings of the patient are greatly increased. If the use of the medicine is still persisted in with a view of exciting ptyalism, high inflammatory action is developed in the salivary glands, tongue, mouth, &c., which not unfrequently ends in mortification and death. In such cases venesection ought certainly to precede the use of mercury, but the propriety of its exhibition may be questioned even after this precaution, for if we bleed in the first place to remove irritation, either local or general, why should we the next moment prescribe an agent that will induce it again?

Nor is its administration in our congestive fevers exempt from the same necessary precautions. Here excitement is so intimately and mysteriously connected with debility that the operation of every remedy is perhaps attended with uncertainty. Much of the mischief which results from the employment of this agent is no doubt owing to culpable negligence in permitting it to remain in the system until it has been ab-

sorbed. Now congestive fever as it occurs with us is a disease in which purgatives must be used with extreme caution, and if the practitioner has unwarily given mercury to a considerable extent with a view of restoring the secretions by its action, he not only fails to accomplish this object but often finds himself in an embarrassing dilemma, to clear the system of the medicine before absorption has taken place, and at the same time observe a proper degree of caution in his measures for the safety of his patient. Sometimes it is true when the stomach and bowels are not particularly implicated, the remedy will restore the secretions and relieve him from embarrassment, but such instances are of unfrequent occurrence, and where those organs are chiefly concerned calomel, by its local irritation, will only increase the disease.

But it is in fevers characterized by high mucous irritation throughout their course, that the injudicious employment of mercury is most to be regretted, because here its effects are masked by the insidious type of the disease. The injurious effects of mercury upon the stomach and bowels when given in considerable quantities even where no previous disposition to disease existed in these organs is a well known fact. From this we may infer that the practice of giving it in alterative doses throughout the course of a disease marked by a subacute inflammation of these parts, is preposterous. That it is so, a careful observation of cases treated in this way will convince us. The first operation of the medicine seems to be beneficial, and this is the more unfortunate as the physician deceived by the partial cleansing of the tongue and abatement of the fever, thinks that a continuation of the medicine alone is necessary to effect his purpose. But soon the tongue becomes still more dry and red, the fever rises a grade higher, and the patient grows more irritable, and here the physician is apt to commit another mistake by presuming all this irritation to be caused by the inveteracy of the complaint, and discovering neither soreness of the mouth nor fœtor of the breath, he continues to exhibit mercury until the appearance of an eruption on the skin and mucous membrane discloses

his error, or the patient sinks exhausted by the insidious irritation of an agent that was thought to afford him the greatest chance for recovery. In such cases it seems to create a morbid irritation in the system, at the same time that it irritates and perverts the tone of the stomach and bowels.

Formerly it was thought that to secure the safety of the patient it was only necessary to induce salivation, and accordingly calomel was given in the most extraordinary quantities and frequently with the most deplorable results. This liberal and profuse use of a violent mineral poison having received the sanction of physicians became the common practice not only of physicians themselves, but unfortunately also of others entirely ignorant of its therapeutic agency, and was followed, as a matter of course, generally by serious and sometimes by fatal consequences. Hence the popular prejudice against it at this time, and hence that predilection for quackery and empiricism which seems to be characteristic of the age. We now understand that the substitution of one disease will not always remove, but will sometimes aggravate an existing one, and thus we may account for the failure of mercury to cure in many instances that seem to indicate its use.

The abuse of a remedy can form no valid objection to its judicious use, but it is evident that there has been and still continues to be an abuse of this remedy which the interests of science as well as of humanity require should be corrected.

Louisville, Ky., March, 1845.

ART. III.—*A Case of Diseased Kidney, with the Post-mortem appearances*, abridged from the case-book of the Hospital of the Kentucky Penitentiary. By W. C. SNEED, M.D., of Frankfort, Ky.

Glass, ætat. 26, of small stature, pale complexion, light hair, engaged by the keepers as a wagoner, was taken very ill on the night of the first of October, 1844. He complain-

ed of violent pain in the right side, and had considerable irritability of the stomach. The day previous to his attack he had eaten very freely of apples and drank a large quantity of sweet cider. He attributed his attack to this cause, and the steward of the hospital treated him accordingly. He had an emetic administered and afterwards a cathartic which brought off, each way, large quantities of undigested apples and cider; some relief was obtained, but it was only temporary as the pain again returned with increased violence, and persisted with more obstinacy. Venesection was resorted to, and about 24 ounces of blood taken from the arm. This, with the use of antispasmodics and opiates, gave him a truce which lasted until the evening of the next day. On the return of the pain we were called to him, and after making thorough examination we had no hesitation in declaring the case one of colic, brought on by the too free indulgence in apples and cider. There was evident tympanitis in the right side which we supposed to be owing to collection of wind in the cæcum and ascending colon. Percussion gave the sound of tympanitis, which with the other symptoms and facts in the case led us to believe, without any hesitation, that our conjectures were well founded. We resorted to the use of opiates and tartar emetic, and in a few hours succeeded in subduing the pain. His pulse during the remission of pain would be full and hard, but on the recurrence of pain, it would become extremely small and rapid. When the pulse was full the skin would be hot, and *vice versa*. The irritability of the stomach ceased in a day or two, and did not recur during the remainder of his illness. The violent symptoms gradually disappeared, and in the course of a week he seemed to be in a fair way to recover. The side, however, continued to enlarge very gradually, and by the end of the second week the abdominal parietes had become elevated above a level with the ribs. The enlargement gradually extended towards the left side, and by the end of the third week had crossed the median line about one and a half inches. Percussion now gave a much flatter sound than it had heretofore. His bowels

could be moved without difficulty, and his appetite had become very good. His stomach was perfectly quiet and performed its functions without difficulty.

It occurred to us about this time that our diagnosis was probably incorrect, and that the enlargement depended upon some other cause. We made some enquiries of the patient in regard to his previous history, and learned from him that when a boy he had received a kick from a horse on the right side, and that there had been considerable enlargement of the side ever since. This statement induced us to believe that the enlargement might depend upon disease of the kidney but we could not tell how it could be so rapid in its formation, and increase to such an immense size.

The enlargement continued to increase, and the patient to emaciate, until the thirty-fourth day after his attack, when he expired.

Sectio-cadaveris—24 hours after death. The body extremely emaciated; the muscles soft and flabby; a general petechial eruption over the surface. The chest presented nothing very remarkable. The heart was atrophied, pale and soft.

Abdomen.—On opening the cavity we were surprised at finding the viscera all crowded over into the left side. The liver, forced from its normal position, occupied the epigastric and left hypochondric region; it was somewhat atrophied but otherwise healthy.

Stomach about half its natural size, but healthy. The cæcum and ascending colon were on the left side of the vertebral column, and attached to the immense sack which proved to be the right kidney degenerated and filled with pus. This enormous sack was attached at its upper portion to the liver and diaphragm; on the left, to the mesentery, large and small intestines; posteriorly it was fastened down by adhesion to the spinal column; and in the same manner to the right side, and to the abdominal parietes as far over as the median line. At its lower end it was attached to the brim of the

pelvis, and a portion of it occupied about one-third of that cavity. No vestige of urethra could be found. The left kidney hypertrophied and healthy.

The sack contained a few ounces over two gallons of pure bland pus. The pelvic portion of the kidney seemed to have undergone the greatest change. It was immensely enlarged, and must have contained nearly the whole amount of the pus. On the inner portion of the sack there were several bony deposits, some of them very firm and as large as a thumb nail. Seven orifices large enough to admit a finger passed from the body to the pelvic portion of the sack. The holes answered to the places of the papillæ and were not connected to each other. The parietes of the sack were not thicker than the human skin, and were filled with veins and arteries. A preparation was made of the specimen, and is now in the possession of Professor Cobb, of the Medical Institute of Louisville.

Frankfort, April 1845.

ART. IV.—*A Case of Empyema successfully treated by an Operation.* By W. C. SNEED, M.D., of Frankfort, Ky.

Empyema is defined by writers to be a collection of fluid in the pleural cavity, whether it be water, pus or blood. Pus being the most common, and that which is the most fatal in effects, is the one to which the term is most usually applied. This effusion may take place into the pleural cavity from various sources, and the lungs from their yielding structure readily give way to it. Vomica of the lungs, abscess of the mediastinum, or phlegmonous abscesses of the lungs and liver, may gradually, by perforating the tissues which separate them from the pleural cavity, discharge their contents into it, which they seem peculiarly disposed to do, from the tendency to a vacuum produced in the thorax during the act of inspiration. A subacute inflammation of the pleura partaking of

a latent character, in which the sympathies are so obtuse as to give no evidence of its existence, or an acute inflammation which in its early or later stages ceases to excite pain and to disturb the action of the organs involved, instead of disappearing entirely, may degenerate into the chronic form, and thus give rise to a morbid secretion and deposit within the pleural cavity. The pleura partakes of the character of a mucous membrane, and when thus affected discharges, *gradatim*, a purulent fluid analogous in its character to that discharged in leucorrhœa, gonorrhœa, &c. In both the latter instances the secretion may be exhausting to the system, but is never directly fatal, in consequence of the secretion being carried off through the natural passages, and hence all the disadvantageous consequences are comprised in its formation. In the former they there only commence. The retention of the fluid is the danger to be dreaded, and constitutes the essence of the disease termed empyema.

In common pleurisy there is always a greater or less amount of serum secreted in the course of the disease, and deposited in the pleural cavity, which is clearly distinguishable by any one accustomed to the use of the stethescope, by the characteristic sound of egophony to which it gives rise. This secretion is usually removed by absorption during the recovery of the patient, leaving the thorax as free as before the attack. But in other cases, and where the disease is but illy cured, or the patient is too soon re-exposed to cold, a purulent secretion takes the place of the serous, and may accumulate in a large quantity in one of the cavities of the chest.

When collections of this character occur in one of the pleural cavities, the lung is compressed and retracts towards the spine, gradually yielding to the effused fluid that space which it formerly occupied. The vessels of the lung can no longer admit the fluids which filled them in a natural state. They become obliterated, adhere together, and the surface of the lung unites to the pleura costalis. The lung continues to diminish in size, and its internal adhesions multiply in pro-

portion to the increase of the effused fluid. Finally, the substance of the lung disappears entirely; the bronchial pedicles become contracted, and the air cells totally obliterated. The lung grows incapable of being dilated, and if the effused fluid is evacuated the space which it occupied remains vacant. Nature being unable to fill up this vacuum by the expansion of the lung adopts other means to overcome the existing difficulty. When the disease has advanced to this stage we may expect but little from an operation. If, however, it is performed at an earlier period, and before the foregoing condition has supervened, it may be attended with success. Nature in some instances becomes her own surgeon, and forms an opening through the pleura pulmonalis into the bronchi of the lung, and the matter is discharged by expectoration. Relief obtained in this way may only be temporary, for the air in respiration finding its way into the cavity of the chest becomes a source of irritation, the oxygen acting upon the pus, and the patient in a short time sinking from exhaustion.

Another process of nature, often attended with success, is a disposition to point externally, and form an opening through the parietes of the chest. This is nearly as effectual as a surgical operation, with the exception that there is more danger of admitting the air, which taking the place of the fluid becomes a source of irritation in the manner before explained.

Sir A. Cooper says that he has never known a case to recover after the operation, and Dupuytren asserts that in more than fifty cases in which he had operated, not more than two had recovered. Later writers than the above have, however, given more favorable reports, and many cases are recorded by English surgeons in which the operation has been attended with success. (See *Cyclopædia Prac. Med., Art.* Empyema.)

In reporting the following case we introduce many details which must be tedious and uninteresting to those who have had an opportunity of witnessing similar cases, and have made

themselves familiar with the treatment of this form of disease. But since no case of the kind has ever been reported in any Western journal, that we have any knowledge of, and as it was one of extreme interest to us, we feel disposed to give our notes of it just as we wrote them during its progress, believing that in this way we shall render it most instructive.

William Milam, aged 13 years, was attacked with pleuropneumonia on the 8th day of March, 1844. On Sunday, the 11th, we saw him and found that his attack was one of extreme violence, and required the prompt use of antiphlogistic remedies. He had been bled by his father, and had taken a dose of calomel on the day previous to our visit. We prescribed calomel in small doses combined with ipecacuan, and solution of tart. ant. in quantities to nauseate and keep down the febrile action. We saw him every day until the 18th, when the violence of the symptoms seemed to be subdued, and he gave every evidence of a speedy convalescence.

During the progress of his case we placed a large blister on the chest over the diseased lung, and kept it open by slightly irritating dressings, until we supposed his lung had sufficiently recovered to admit of its drying up. This seemed to have a powerful effect in checking the inflammation, and we hoped by keeping it open that it would, by its continued irritating effects, promote the speedy resolution of the lung and cause absorption of whatever effusion might have taken place in the pleural cavity. His case was aggravated and protracted by the existence of a large number of intestinal worms, which caused delirium, subsultus, &c., until they were expelled. By the proper administration of vermifuges, upwards of sixty ascaris lumbricoides were expelled, affording much relief and entire composure to the patient.

The case having progressed, and as we supposed, terminated, so favorably, we were much surprised on being summoned to visit him again on the first of April following. We found him laboring under the following symptoms, viz.: slight difficulty of breathing, with a hacking cough; pain in the left

side; no expectoration, and considerable acceleration of pulse—about 120 in a minute.

The blistered surface it was found on examination had not healed up. Through and around the blistered surface there were a great number of small boils, very tender and exceedingly annoying to the patient. Ordered a starch poultice to the blistered surface, calomel and ipecacuan to subdue the excitement, to be followed by sulphate of morphine to lessen pain.

April 2. The difficulty of breathing still continues; pain in his left side when he coughs; respiration hurried; pulse 130 per minute, quick and small; lies on his left side altogether; no appetite; has 84 small boils on the left half of his body and limbs, some of them are the size of a small acorn, but the greater number are very small and painful, some have matured and burst, but the remainder are red and hard. They are more numerous in and around the blistered surface than elsewhere. We discovered no enlargement of the side, and did not suspect effusion of any description within the pleural cavity. Same prescription ordered.

April 5. Found him free from pain in the side, and much easier than when last visited, in consequence of the entire disappearance of the boils. They have left no other evidence of their existence except a small, hard, bluish looking spot. His side is evidently swollen, but the swelling seems to be confined to the skin and subcutaneous cellular tissue. There is considerable œdema under the blistered surface; the skin there red, and rather warmer than in other portions of the body; his general symptoms much improved; appetite good; bowels moved without medicine; skin moist; pulse not so frequent. Continue the anodyne.

7th. Since our last visit no material change has taken place in his general symptoms; the œdema has increased and now occupies a large portion of the left side; the skin is very red, and there are several hard spots about the centre of the swelling; the intercostal spaces are pointed at several places; side is evidently enlarged, and all the symptoms go clearly to

prove the existence of a fluid in the pleural cavity; there is complete dullness over the whole of the left side; neither vesicular nor bronchial respiration can be heard from any portion of the lung. On measurement the side is found to be three inches larger than the opposite.

All the evidences of empyema being present, we had no hesitation in deciding upon the course proper to be pursued; but as we were not prepared to perform the operation, and the patient being six miles from town, we were obliged to postpone it until next day.

8th. Found the patient free from pain, cheerful, and in every way in a condition for the operation. The left side has increased in size since yesterday; breathing rapid but not difficult; the impulse of the heart is in the right side opposite its proper location; pulse 140; skin soft and pleasant; tongue clean; lies on his left side altogether; when turned upon his right side, becomes greatly distressed, and has to be turned back immediately.

In performing the operation we adoped the plan pursued by Dupuytren and Baron Larrey, which consists in making a valvular opening through the skin, by which means the air is prevented from entering the cavity of the chest after the fluid is evacuated.

We had the patient placed upon a trunnel-bed, that being the most convenient arrangement we could make, and punctured the side between the sixth and seventh ribs as near the angle, as the margin of the latissimus dorsi would permit. The skin being drawn upwards as tight as it could be, an incision about three-fourths of an inch long was made through it and the upper margin of the rib felt for. The lancet, which I used in preference to a trocar, was then gently passed into the cavity of the chest, and upon its withdrawal pus followed in great abundance. An assistant kept the orifice open by pressing the two edges apart, and the pus was suffered to flow out gradually as the expansion of the lung took place. The patient became exceedingly alarmed and we were compelled to close the orifice before we had taken more than

half a pint of pus. The skin was then drawn down and the orifice completely closed with an adhesive strip without the introduction of a particle of air.

11th. The patient being composed and every thing favorable, we introduced a silver female catheter and drew off half a gallon of pure bland pus. This gave marked relief and he expressed himself greatly relieved from the difficulty of breathing and weight in his left side. His cough which had been more or less troublesome, ceased almost entirely, and he could turn on his right side without the sense of suffocation which he had before experienced so violently.

The heart could be felt under the sternum, and respiration could be distinctly heard in the upper portion of the lung. Not more than a few bubbles of air entered the cavity on the withdrawal of the catheter. In all the lower portion of the lung there was no sign of respiration, except a peculiar sound produced by the expansion and contraction of the organ, somewhat resembling the sound made by shaking a cask partly filled with water. This sound we attributed to the agitation of a portion of the pus left after the catheter was withdrawn.

The orifice was again closed by adhesive strips, and a bandage was applied round the chest and drawn as tight as he could well bear it. He was put to bed and ordered tincture opii sufficient to relieve pain and produce sleep. Strong hopes were entertained that the bandage would contribute much towards bringing the ribs down to their proper position, and that the lung when relieved of its pressure would expand and speedily reoccupy its former space. This expectation was to some extent realized; on our next visit we found that the ribs had descended to a considerable extent, and that the lung had expanded at its upper portion so as to be distinctly heard.

Pus, it may be proper to remark, when thus collected in the chest, unlike the serous effusions, is never or scarcely ever removed by absorption. The successive increase of the

fluid reacts upon the membrane, which forms it, and thus keeps up a perpetual irritation and a perpetual flow. If not withdrawn from the body, it compresses the lungs against the mediastinum, and destroys the patient by suffocation, or wears him out by the irritation. In this case suffocation would have resulted in a few days, and the patient must have perished but for the timely removal of the fluid.

16th. Found patient cheerful and much improved since our last visit. His side has contracted and is but little larger than the opposite. His appetite is good and his food digests well; his bowels have been evacuated daily without the use of medicine; His skin is moist, but he has no cold stage or fever during the day. Respiration can be heard at the upper portion of the lung anteriorly, but not posteriorly. The incision has closed by adhesion and requires some force to pass the catheter into the chest.

Introduced the instrument and drew off three half pints of pure bland pus, without the introduction of any air. Ordered bandage to be continued and to be tightened as fast as the contraction of the chest took place. Continue tr. opii *pro re nata.*

29th. Visited patient every 2d and 3d day since last report and drew off about three half pints of pus each visit. His side continued to contract slowly, but the contraction has taken place posteriorly more than it has anteriorly. This we suppose has been in some measure owing to his resting on that portion of the ribs more than on the anterior. His appetite continues good, and his digestion undisturbed. He is greatly emaciated and when the pus is suffered to collect in larger quantities, he has chills and hectic fever. His heart is still in the right side and beats so forcibly as to be felt between the ribs. The right side has increased in fulness, and there is increased resonance in the right lung. This increased resonance has resulted from the extra amount of service required to be performed by this organ. The pus is becoming somewhat fœtid, and is filled with flakes of white matter which clog the instrument and render the extraction of the

pus much more tedious and difficult. The ribs from the contraction of the side are in contact with each other, and the passage of the catheter between them is very troublesome.

In consequence of the sinking down of the ribs, the orifice has lost its valvular character and now passes directly into the cavity of the chest. We determined consequently to let it grow up and make another, after the plan pursued in the first instance by which the introduction of air, now unavoidable, would be prevented, and this was accordingly done and the difficulty obviated.

May 2d. Drew off nearly two quarts of pus, more fœtid but thinner than heretofore. General condition of the patient nearly the same as at our last visit.

6th. The matter has continued to form and is rather on the increase. It has become exceedingly fœtid and much thinner than it was at first. His father has introduced the instrument and drawn off every other day about three pints of fœtid pus. The rapid and continued secretion of pus has caused emaciation to progress very rapidly, and the patient is not able to walk across the house. His appetite continues good, and his food digests without difficulty. The fulness in front continues, and the instrument can be passed about three inches in the direction of the apex of the heart; pulse 140; skin hot and dry.

We have been giving him wine, tinct. mur. ferri, quinine, &c., but perceiving no good to result from their use they have been discontinued. He has been taking a generous diet, which being well digested has supported the immense waste of the system and kept him alive.

9th. The pus has been accumulating since our last visit, and has distended the side and pressed against the diaphragm, until the abdomen is considerably enlarged; introduced the instrument and drew off two quarts of thin pus; after evacuating the matter he expressed himself relieved from the pressure on the stomach, of which he had been complaining for several hours. His breathing was much improved, and his feelings in every way greatly alleviated.

We discovered several days since a collection of air under the pectoralis major of the left side, which has continued to increase until it is now occupying a space as large as the palm of my hand. When pressed upon it disappears, but returns immediately on removing the pressure. When the pus is withdrawn from the thorax the emphysema disappears, and does not return until the cavity is again filled with pus. There is a communication from the thorax to the under portion of the pectoral muscles, which has been produced by an ulceration through the intercostal muscles.

We have used a great variety of medicines with the view of keeping up the tone of the system, and to arrest, if possible, the immense secretion of pus. So far as we have been able to judge, nothing has been of material service to him except the tinct. opii, which has relieved pain and produced sleep.

14th. His father has introduced the catheter night and morning and drawn off each time on an average about half a pint of pus. He has been allowed animal food freely. His strength has increased under the use of it, and in every way he seems much improved. The character of the pus continues about the same.

The instrument has to be passed about two and a half inches upwards and inwards before the pus will flow out. There is evidently a false membrane formed within the pleura costalis. The emphysema still exists when the pus is suffered to accumulate, but disappears when it is drawn off.

We continued to visit our patient once or twice a week during the months of May and June, and pursued about the same course of treatment as that above detailed. We discontinued the use of all kinds of medicine and relied entirely upon wine and a generous diet to support the system. The matter was drawn off daily, and often twice a day, by his father, averaging from one to three half pints per diem. The bandage was kept on and gradually tightened as the side contracted. Under the use of the wine and a generous diet he gained strength notwithstanding the copious secretion of

pus, and by the first of July he could walk across the house without help.

July 1st. He is much improved in every way. The pus is not so fœtid nor secreted in such abundance; it is more transparent, and has now more the appearance of serum than of pus. The emphysema has nearly disappeared, and the side has contracted until it is about two inches smaller than the opposite one.

The absence of all inflammatory symptoms and the change in the character of the secretion induced us to believe, that much might be effected by the use of astringent injections into the pleural cavity, and we determined, notwithstanding the doubts expressed by the highest authors upon the subject, to try their efficacy in the case of our patient. Before resorting to this remedy we learned that a medical gentleman in an adjoining county had been the subject of the same affection in his youth, and we addressed him a letter inquiring as to the treatment pursued in his case. In reply to our inquiries he addressed us a letter, which is subjoined, giving a brief history of his case, and recommending very strongly the use of astringent injections.

We commenced injecting about half a pint of a weak decoction of oak bark into the cavity once a day, after having first drawn off the pus. The result was truly gratifying. From this time he improved rapidly; the secretion lost its fœtor, and became almost serous in a few days. It continued to be secreted, however, until about the middle of August, when the amount became so small and serous that we discontinued the injections, and let the orifice close. The emphysema gradually subsided after we commenced the use of the injections, and entirely disappeared before the orifice closed. His left side is at this time two and a half inches smaller than the right. The spine is curved to the right about three-fourths of an inch. His left shoulder instead of sinking, as I anticipated it would, is higher than the right: this may be attributed to the fact of his lying on his left side altogether during his illness. The heart is now under the sternum and can

be felt about as distinctly in the left as in the right side. Respiration can be distinctly heard through a greater portion of the left lung, and the metallic tinkling which has existed so long has ceased entirely.

The gratifying results of the treatment of this case of empyema—results so seldom met with when paracentesis is performed, appear to be due, in part, to the youth of the subject, and to the great recuperative powers of his system. But much we think is due also to the valvular opening which was made, and which kept open for so long a period, enabled us to prevent the immense secretion from accumulating in the chest, in consequence of which the lungs were permitted to expand and the ribs to contract until the cavity had become obliterated. In the numberless introductions of the catheter, a bubble or two of air was the most ever allowed to enter the pleural cavity, and these at the withdrawal of the instrument. The temperature of the atmosphere seemed to exert a very decided effect upon the secretion; whenever there was a change in the weather, the air becoming cold, his symptoms were invariably aggravated; the pus became more copious, and the fœtor was increased.

This case, altogether, we consider a very remarkable one, for its violence, and for the speediness of the cure. From the commencement of his illness to the time of the first operation, only about thirty days elapsed, and from the day of the operation to the closing of the orifice, about four months transpired. During this time the instrument was introduced upwards of one hundred times, and we feel fully assured that not less than fifteen gallons of pus and serum were taken from the chest of the patient little sufferer.

We saw our patient to day, and find him in the enjoyment of good health. The heart is in its proper place, and respiration can be heard through the whole of the left lung. The side is still contracted, but no inconvenience is felt in consequence of the diminution of the lung. The cure may be considered perfect.

Frankfort, April 1, 1845.

The following is the letter referred to in the preceding article:

OWENTON, Ky., July 10th, 1844.

Dr. Sneed:

DEAR SIR—In reply to your letter inquiring for the particulars of my case, I hasten to reply, that I was taken with dysentery when about 13 or 14 years of age. The physicians gave me medicine which checked the disease suddenly and threw me into violent pain, which settled in my left side. I knew nothing for three days; from this time, or shortly afterwards, there was some swelling perceived in my left side, which gradually increased for sometime, when I was assured that matter had formed in the chest, but I refused to submit to an operation until I could see more appearance of it externally.

The pulsation of my heart was found in the right side, and Dr. Moore, of Shelbyville, and others, supposed that malformation of the chest existed, and that the heart had never occupied its proper situation. My side was finally opened, the incision into the chest being about one inch below the left nipple, and the opening through the skin about an inch below that. There was half a gallon of pus discharged before the opening was dressed, and I think as much more that night. During the time the pulsation of the heart moved several inches towards the left side.

In the course of about twelve months after this, a small tumor made its appearance two inches below the incision. This was also opened and discharged freely. About this time, or perhaps sooner, I began to expectorate a very offensive pus, often, in the morning, as soon as I began to move in bed, discharging a pint of so acrid a character that it seemed to excoriate the throat. Sometime after this, the communication became divided into the cavity of the chest. Every time that I breathed, the air would pass in and out at the opening with such violence that it could be distinctly heard, and its effects seen upon the discharge. When I coughed this sound could be heard across the room.

My physician now resorted to an injection, consisting of a decoction of barks—a part of which I usually coughed up, while a portion was discharged at the lower opening in my side, proving that the cavity of the sack was common to the two outlets, and that there was adhesion of the lungs to the side, and a direct communication between them and the external openings. After using the injection a few times I coughed up no more matter; the lower orifice in my side healed, and I gradually recovered. A probe for a long time could be passed five and a half inches directly towards the spine. I do not know that any medicine was of much advantage to me. My appetite was good all the time, which being indulged, supported the system and kept me from sinking. For a time dieting was attempted, but I grew worse every day, when the system was abandoned, and I was allowed bacon, beef-steak, and such nourishing articles. My side ran for two years, and I have no doubt that the discharge of matter from the two openings, and by coughing, amounted to sixty gallons. This statement may seem unreasonable, but I believe that my estimate is rather under than over the mark. Very little air now passes through the lobe of my left lung.

Yours, most respectfully,

F. REED.

REVIEWS.

ART. V.—*An Essay on the Philosophy of Medical Science.* By ELISHA BARTLETT, M.D., Professor of the Theory and Practice of Medicine, in the University of Maryland. Philadelphia: Lea & Blanchard. 1844. 8vo. pp. 312.

There are some things about which men may differ. There are some things to which they may attach too much importance. There are some things for which a man may endeavor to create an interest. But the healing art is not one of those things.

Men may differ as to the best form of government; or whether mankind would not be better off in a state of nature, as they suppose, without government. Jurists may differ, and do differ, as to the best civil code. But the time never will come when mankind will differ about the value of the healing art. Here even doctors do not differ. We may question in a general sense, we allow, whether more men are killed or cured by drugs; but yet, we repeat again, the time never will come, while man is in the state in which he now is, when the good physician will not be looked upon as the good christian; as a man above price, a light set upon a hill, which cannot be hid.

It is not as many suppose, that physicians of olden time were distinguished, and had their names handed down to us, because they were scholars, and were celebrated for their attainments in literature, and other accomplishments: not so. They immortalized themselves by healing the sick; by doing good. Physicians, in every age, have made an impression upon the world, and that impression will never be effaced.

From the cradle, nay, even from the womb to the grave, the doctor's services are felt and demanded.

Philanthropy applies more appropriately to the medical profession than to any other class of mankind.

Medical schools may multiply, the standard of the profession may be lowered, never so much; quacks may vend their nostrums with a diploma in their hands; but there stands the science, firm as the pillars of the earth; and her true disciple, the good physician, like the mariners compass, no discovery will ever supercede him.

Medicine is as truly a science as any other department of knowledge to which the term is applied. No science is more varied or extensive. The nature of this science, and in what it consists, we may dispute about. That a correct understanding of its principles is all important none will deny.

It is with these feelings and impressions that we undertake to review the work before us.

La Place, in the introduction to his Celestial Mechanics, expresses some concern lest intelligent astronomers might have some difficulty in understanding his principles. So vague and indefinite have been the notions of medical men as to what constitutes medical science, and so unlike is this Essay to any work which has preceded it, that we fear, by a large majority of readers it will neither be appreciated nor understood.

Various are the reasons which will induce the different classes of medical men to decry this work. Already have we heard, and that too as a matter of congratulatory remark among some teachers of medicine, that the book fell still-born from the press.

All systematists will feel a deep interest in its rejection. The disciples of Cullen, Brown, Broussais, &c., will agree upon this, if upon nothing else. They will be unwilling to give up their theories, especially as the author of the new doctrine does not propose a theory of his own. *The classification and arrangements of the phenomena and their relationships,* will be to them a poor substitute for *inductive*

reasoning; and but a meagre definition of science and philosophy.

All medical science, says Dr. Bartlett, consists in ascertained facts, or phenomena, or events; with their relations to other facts, or phenomena, or events; the whole classified and arranged.

We read this proposition, with those which immediately follow it, to a physician of ordinary intelligence, who called at our office, and taking up the book, asked us to state to him, in a few words, in what Dr. Bratlett made the science of medicine to consist. He forthwith exclaimed, *there is no philosophy in that.* Such we candidly believe will be the judgment passed upon this work by a majority of its readers.

It is our deliberate opinion that the doctrine of our author will not be comprehended by a majority of physicians. They will be so unwilling to recieve it that they will not take the trouble to study it, so as to take hold of the true meaning of the author. For although no man could express his thoughts in a more clear and intelligible manner than the author has done, yet when the reader comes to inquire, what does this new doctrine amount to, if he feels the force of the reasoning, he will be so completely unsettled, that he will be like a boy lost in his father's forest: he may know the trees individually, but will be unable to find his way out of the woods.

The doctrine of Dr. Bartlett is, that medical science is to be considered as a branch of natural history, with separate and distinct parts: which parts are to be treated of and studied in themselves. That there are facts, or phenomena, or events, appertaining and belonging to each of these parts, nor can the one class of facts, or any of them be inferred or deduced by *a priori* reasoning, from the facts which are to be found in another, or other parts. That the science of medicine, as all natural science, is a science of observation of facts, or phenomena, or events, with their relationships to other facts, or phenomena, or events; the whole classified

and arranged. In other words, that the whole compass and power of the human mind, in the study of natural philosophy, medical science included, is limited to the observation of facts, phenomena, and events, and the classification and arrangement of them. That the mind cannot look beyond what, in a certain sense, it may be said to see. That an hypothesis or theory may lead to experiments, and thus be of some use, but that it can do no more. That the greatest man is the one who has observed (carefully and without prejudice, be it always understood) the largest number of facts, or phenomena, or events, in reference to any science or sciences, and who is the best able to classify and arrange them—to generalize them.

The genius of the minds, which have presided over American schools, and given direction to the young intellects of our new world, is not the genius of labor, of close, careful, untiring observation, of rigid generalization; but the genius of speculation.

Dr. Bartlett is of opinion that the view generally received and acted upon has given rise to a loose and vague philosophy, if we may honor the crude notions commonly taught with that name; that we have jumbled together incongruous things, as one of the old doctors did his drugs, expecting some good to come out of the mixture. Such, indeed, is the fact. So mixed and confused has been the study of medicine, that it is not only difficult to find a well educated physician who can give an intelligible summary of the most important divisions of medical science; but even among teachers we find that they have not so learned medicine. It is a very common complaint among students of medicine that the professors trespass upon the branches of each other; now the true reason for this is, that not one professor in a dozen could complete his course if he did not do so. It is in plain terms, ignorance of their own branch which makes them trespass on that of another; and yet they often say that they have not time to complete their course. The truth is that many of them would not know when it was comple-

ted. They have no definite idea of what is included in their department.

Bad as this state of things is, these gentlemen are not altogether to blame for the parts which they act. It is mainly attributable to the sort of philosophising which has prevailed, and to the manner in which medicine has been studied and taught.

Preliminary to the philosophy of medical science, we have in this Essay a condensed view of the principles of physical science. The first proposition is: "All physical science consists in ascertained facts, or phenomena, or events; with their relationships to other facts, or phenomena, or events; the whole classified and arranged: and in nothing else." The author says, "There seems to be a common feeling, that the facts, phenomena, and events, with their relationships, classified and arranged, constitute not the entire science to which they belong, but only the foundation of the science. There is a feeling, that these facts and relationships are to be used as elements, out of which the science is to be built up, or constructed, by what is called inductive reasoning. The feeling implies, and the avowed doctrine asserts, that the science is in this subsequent process of reasoning, and not in the facts themselves, and their relationships." To maintain this general doctrine, and to deny the correctness of the view commonly received is the burden of his labors. What the author says of physical science in the above quotation he insists upon as true respecting medical science, that it consists in ascertained facts, with their relations to other phenomena, classified and arranged. He continues:

"If it is true, even in physical science, as I have endeavored to show, that the doctrine stated in my first proposition, is only partially and imperfectly recognized, it is so to a much greater extent in regard to the same doctrine in its application to medical science; and the remarks already made upon this doctrine may be repeated with still less qualification, and with more emphatic significance, in connexion with my present subject. The fundamental and primary truth, that all medical science consists in the appreciable phenomena of

life, with their relationships, classified and arranged, and in nothing else, has never been generally admitted and received. This science, to a vastly greater extent than any other, has always suffered, and still continues to suffer, from the general prevalence of a spurious philosophy, and from vicious or imperfect methods of investigation; and one element in this false philosophy, leading to these mistaken methods, is to be found in the inadequate conception or half-belief of the doctrine above stated. Here, as in physical science with very few exceptions, men, claiming to be disciples of the Baconian philosophy, eloquent in their praises of what they call *inductive reasoning*, and full of earnest declamation against the dangers and the prevalence of false or premature generalizations, and of hypothetical speculation, have failed to see more than half the truth, and have, oftener than otherwise, fallen headlong into the errors which they were so ready to condemn. The feeling has been much more common in medical, than in physical science, that although facts and their relations might indeed, and must constitute the *foundation* of the science, the science still consisted in something more than these facts and relations;—that *upon* these latter the science itself was to be somehow built up, by that magical and creative process of the mind,—that evil genius of medical science,—called indeed, *induction*, but differing, when stripped of its disguises, in no single function or attribute, from that speculation, the place of which it professed, with promises as loud and pompous, as they have proved to be barren and empty, to occupy. The feeling has been, and still is,—as much, almost, since the time of Bacon as before,—that the science is in the *inductive or reasoning process, superadded to the facts and their relations*, more than in these latter themselves. Here, at the commencement of this part of my essay, I wish to enter my protest against this doctrine, in all its forms and modifications. I wish to show, that the science of medicine consists *in the phenomena of life, with their relationships, classified and arranged*,—WHOLLY, ENTIRELY, ABSOLUTELY. I wish to show, that these elements constitute,—not the foundation upon which, nor the materials, merely, with which, the science is to be subsequently constructed, by some recondite and logical process of the reason,—but that they *are* the science, and the whole science, already constructed, and so far completed; and that nothing can be superadded to them, by any act of the mind, which can in any way increase their value, or change their character.

The second proposition of our author maintains, that our knowledge of physiology is not deducible from our knowledge of anatomy. He asks the question, "Is there anything in the obvious physical properties of the glands of the human body,—is there any thing in their chemical composition, or in their minute molecular arrangement,—from which even the obscurest, and most shadowy glimpse could have been obtained of the several offices which they are destined to perform? Could the scalpel of the dissector, or the lenses of the optician, or the retort of the analyst, or all combined, have ever revealed to us the power of the liver to secrete bile, of the kidneys to secrete urine, of the mammary glands to secrete milk? The answers to the questions are in the negative—that the most intimate knowledge of the anatomy of an organ does not teach us the function of that organ."

But it does not follow that, because anatomy does not enable us to understand physiology, we can understand the latter without a knowledge of the former. There is, I conceive, some want of fairness in the order in which the subjects are arranged: namely, anatomy, physiology, pathology, therapeutics; although those which precede do not teach us those which follow, yet we cannot understand the subsequent without a knowledge of the antecedent.

We proceed a step further, says Dr. Bartlett. "Pathology is not founded upon physiology. The latter is not the basis of the former. The one does not flow from the other. Our knowledge of the one does not presuppose our knowledge of the other." The chapter from which this extract is made, is taken up chiefly in stating the qualifications of the doctrine just stated. The qualifications are, in our judgment, fundamental, and vast in their consequences. But our author is not of that opinion; and here, before stating the qualifications, we would remark, that Dr. Bartlett, though writing a book in opposition to all medical theory, is, nevertheless, decidedly under the influence of one himself. He is a disciple of the French school, and shews his theoretical bias more by oppo-

sing what is called humoralism, than by positively advocating solidism.

The first qualification to which we would call attention, is given by our author as follows: "I have already said that every simple and direct relationship is constant and invariable. Supposing now the physiological actions, relationships of the body, to be fully ascertained, we may safely conclude, independent of positive experience, that a change in those relationships will be followed by a change in the actions themselves, and, and in the results of those actions. Thus after physiology has taught us, as far as it can teach us, the action of the oxygen of the atmosphere upon the blood, we may safely and positively conclude, prior to all experience, and independent of it, that if this action is interrupted, all the subsequent physiological processes, with which it is connected will be also, and necessarily more or less disturbed; and the same thing is true of physiological actions and relationships."

The author thus expresses himself on the same point:

"Finally, so intimate, and complicated, and manifold, are the physiological relationships of the living economy; so closely is each part connected with the rest; so readily and powerfully do these parts act and react upon each other; so complete, in many instances, is the union and the coöperation of the mechanical, the chemical, and the vital processes, that, independent of actual experience, we might safely conclude, that an injury inflicted upon one part of the body might often affect, more or less seriously, many other parts; and that a disturbance, or suspension, of any one of the three great processes might, in many cases at any rate, disturb, or suspend, the other two. Having ascertained, by observation, the complicated physiology of the circulation and of respiration; having ascertained the existence of various mechanical, chemical, and vital actions, and their necessary coöperation in order to produce a certain result, consisting in the circulation, the oxygenation, and the decarbonization of the blood; it would follow, as a matter of course, and independent of positive experience, that a disturbance, or suspension of one of these associated actions, should disturb, or suspend, the others. Inasmuch as the integrity of the mechanical contri-

vances for the repeated exposure of the blood to the influence of the atmospheric oxygen is necessary, to secure this exposure, and inasmuch as this exposure is necessary, in order that the oxygenation, and decarbonization of the blood should be effected; and inasmuch as this change in the blood is essential in order to prepare it for answering its purposes in the vital processes of the body, it follows, necessarily, that any disturbance, or imperfection, in the first mechanical process, will be followed by corresponding disturbances and imperfections in the subsequent and associated chemical and vital processes. In the same way, also, having ascertained that certain substances are eliminated from the body by the physiological actions of the liver, and the kidneys, we might justly come to the conclusion, without waiting for the positive teachings of experience, that the retention of these substances within the system would be followed by unfavorable results."

We would ask, do not these qualifications cover the entire ground of functional disorder? Do they not apply with great force to the causes and nature of miasmatic fevers? Do they not apply to scrofula, since Baudelocque has so conclusively shewn that it originates in the breathing for a length of time of bad air, or air intermixed with carbonic acid or other gases? But the author takes a very different view of them. In justice to his profound and extensive knowledge of his subject he was compelled to make them. But will not every reader be astonished to hear him say—"they are more nominal than real. When closely examined and analysed they reduce themselves within very insignificant dimensions."

This multiplication of his own qualifications, which we maintain are fundamental, philosophical, and true, proves our author to be himself a theorist, and that he attaches undue importance to lesions of structure.

If it is granted as a fact, that from a particular cause, miasm for instance, the blood has been altered in its composition, we can as readily comprehend how certain organs must become disordered, as we could in the first instance understand how the blood became changed. It is not a specultion to say that the liver will be implicated under the continued opera-

tion of such a cause; and that local congestions, as of the head, lungs, and abdominal viscera, may be anticipated.

The departure from the healthy, natural action of vital organs is all that we have to guide us in many cases of the worst form of disease. We may know that a particular lesion exists, but it profits us nothing. We cannot reach the local affection until we remove the difficulty in the way of vital functions; and the means by which this is to be accomplished have no reference to the lesion whatever.

That our author belongs to the class of solidists, we have only to refer to his chapters on intermittent, remittent, and yellow fevers, in his work on typhus and typhoid fever, to be convinced. In his remarks on these fevers we have clear evidence of his leaning to this particular school. Else why should he refer to the writings of men who have seen scarcely anything of the diseases under consideration, when there are so many volumes abounding in facts observed by men who lived for years within the tropics, or near them; by men of the most thorough medical education, and remarkable for the patience and carefulness of their observations; men who tested their theories by years of laborious and successful practice? Why should he refer to Trousseau, Louis, Gerhard, and Stewardson, and pass by Bancroft, Pringle, Lind, Cleghorn, Mackintosh, and James Johnson, not to mention others of equal celebrity? Simply, as we conceive, because the gentlemen to whom he is pleased to refer, with Louis at their head, advocate the system which he adopts; and because they have devoted more time to the examination of anatomical lesions.

It would be difficult to find a more remarkable instance, than is furnished by our learned and ingenious author, of the impossibility of writing on medicine without becoming the advocate of some theory or system. Evidently his is a mind thoroughly imbued with the true inductive philosophy; his conceptions of what constitutes science are eminently just, and yet while repudiating all hypothesis he gives indu-

bitable proof of being under the dominion of a mere hypothesis. His work might be called an essay on the architecture of medicine. It places in bold relief the different columns and pillars; he has wrought out each part in exact and due proportions; they are finished in a masterly manner. But the architect is unwilling that the edifice should be constructed. He must have each part stand separate and alone; and although he sees that the parts are made to fit into each other, yet he declares that this is only in appearance, and not a reality—that they are in fact isolated, and so they must stand.

We agree with Dr. Bartlett, that anatomy, physiology, pathology, and therapeutics are separate and distinct; and that to suppose that a knowledge of one will give us a knowledge of the other is a great mistake,—one which cannot be corrected too soon. We believe that a vast amount of false philosophising has prevailed and still prevails on these subjects; we believe that the geologist who first discovered and made known the arrangement of the strata of the earth into primary, secondary, and tertiary rocks, with their several subdivisions, scarcely did more for the student of geology than our author has done in this work for the student of medicine; and had he been free from the bias of the French school he would have made his essay far more valuable than it is. But he had adopted in theory, and acted upon in practice, M. Louis's method, long before he wrote a page of his work; and we cannot resist the belief that his object was not more to correct errors which really exist, than to lay the foundation for M. Louis's system.

If pathology consists in the facts, or phenomena, or events of disordered action, with the relationships of these facts classified and arranged, as in fact it does, may we not say that there are relationships existing between these facts, and others observed in the domain of physiology? Should not the physician at the bed-side of a patient endeavor to ascertain every fact, whether it be found in one or the other departments of the science, and then consider its relationships? Is it contrary to sound philosophy to take a comprehensive view

of all together? We think not, and we are obliged therefore to deprecate this unreasonable disposition to build up a wall of separation between the different branches of the science.

Man is a living being, and in the same body we find, so far at least as the solid organism is concerned, diseased and sound parts. We shall never be able to draw the line of separation between the sound and the unsound as we can between a stratum of primary and of secondary rock; nor can we weigh the quantum of health and disease as we can the chemical elements of a block of marble.

Dr. Bartlett thinks that diseases may be classified and arranged as plants are, according to the natural system of botany. We greatly doubt this. We incline too much to the humoral doctrine to allow the practicability of any such thing.

Our author is unable to believe that our facts are sufficient to prove that malaria is the cause of intermittent, remittent, and yellow fevers. Now it strikes us that the reason for this remarkable scepticism is to be found in the fact, that almost all who hold to the miasmatic origin of the fevers in question, believe that it enters the circulation through the lungs along with the air we breathe. This view involves so many humoral consequences, which are inevitable, that to avoid them, Dr. Bartlett boldly denies the first position—that miasmata are the cause of these fevers.

Dr. Bartlett seems to think that because the successful practice of medicine has not kept pace with the improvements and discoveries which have been made in some of the branches of the science, we have corroborative proof of his position, that a knowledge of the one branch does not teach us a knowledge of the other. He refers to Mr. Jefferson's opinion concerning the practice of medicine before and after the discovery of Harvey. If medicine was practiced as successfully before the discovery of the circulation of the blood as it has been since, the fact is in opposition to the doctrine of our author. We believe that many men have been more dis-

tinguished as successful practitioners than is M. Louis at this day. Indeed Dr. Bartlett admits himself that English physicians are more successful as practitioners than the French.

Before pathological anatomy came to be thought so very necessary a part of medical education, and the doctrine of lesions became the order of the day, physicians made out their diagnosis more by a comparison of disordered with healthy actions, than in any other manner. They did not go farther perhaps than Dr. Bartlett allows us to go in his qualifications to his general doctrine, but that was far enough; and upon such principles they practised successfully; more so, perhaps, than Louis, or Chomel. To shew how uncertain are pathological appearances after death we may quote M. Louis's opinion of Broussais. He holds that Broussais, with all his knowledge and extensive observation, was not qualified to pronounce upon the cause of death after a post mortem examination. Broussais was a "theorist;" and so may be Louis; and so may be our author.

When Dr. Bartlett says that therapeutices is not founded upon pathology, he merely intends to say, as we conceive, that our knowledge of a particular lesion does not enable us, *a priori*, to determine upon the remedy. We do not understand him to mean, that after a remedy has been discovered, there may not appear to be a relationship between the disease and the remedy. We will give an illustration.

When Champollion first directed his attention to the Egyptian hieroglyphics he could not conceive of their import; but after the Rosetta stone gave him a clue, he went on gradually to read, until after a time, he was prepared to relate to the world the mysteries of the pyramids. So in the science of medicine. If our remedies act in accordance with the laws of the animal economy at all, there must be a relationship between the diseased part and the remedy; accident may discover it at first; but after it has been discovered, it is not unreasonable to suppose that the mind may perceive that relationship. When we shall come to understand diseases more clearly, when we shall have more carefully investigated the

action of remedies, and learned better to discriminate between the physiological and therapeutical action of a medicine, we shall be able to perceive these relationships more clearly, and no doubt discover a greater number of them.

We have been reluctant to differ with our excellent and distinguished author on these points, but notwithstanding the errors into which we are constrained to believe he has fallen, our estimate of his work is such, that we cordially recommend it to every young physician as a most useful aid in the prosecution of medical study. We believe the award of posterity concerning it will be favorable; and for ourselves, we are agreed that the medical philosophy of our century shall be judged of by it. J. C. D.

Lexington, April 21st, 1845.

ART. VI.—*A Treatise on Poisons in relation to Medical Jurisprudence, Physiology, and the Practice of Physic.* By ROBERT CHRISTISON, M. D., F. R. S. E.; Professor of Materia Medica in the University of Edinburgh; Fellow of the Royal College of Physicians, &c.; Member of the American Philosophical Society, of the Royal Academy of Medicine of Paris, &c., &c., &c. First American, from the Fourth Edinburgh Edition. Philadelphia: Ed. Barrington & Geo. D. Haswell. 1845. 8vo. pp. 756.

The subscribers of the Select Medical Library and Bulletin of Medical Science are already in possession of this elaborate and admirable treatise, the editor, with his usual judgment, having selected it for the beginning of a new year. It is a work the want of which has long been felt in this country, and appearing now in an unexpensive form it may be expected in due season to take its place in the libraries of all reading physicians. No one need hesitate about its purchase on account of any apprehension that it may be superceded in any reasonable time by a more perfect work, since

it would be difficult to point out in it any deficiency, or to show how in any particular it might be improved. For the student seeking to store his mind with all that relates to the subject of poisons, and equally for the practitioner who may have occasion to refresh his memory concerning the tests and antidotes of these agents, it is safe to say that it is one of the most finished and satisfactory guides that any language could furnish. Higher authority than that of Christison could not easily be found on any point of the profession towards which he has directed his mind, but having made poisons a matter of special study for many years, during which he has enjoyed ample opportunities for becoming familiar with all the details of the subject, a work abounding in original observations and opinions, exhibiting the science of toxicology in its present advanced state, and entitled, therefore, to take the first rank in its class, is what might have been looked for from his pen. We congratulate our readers on the opportunity now afforded them of procuring such a treatise.

The work is divided into two parts, the first treating of general poisoning, and the second of individual poisons. Under the first head the physiological action of poisons is discussed. This may be either local or remote. The local effects of poisons are various, some acting chemically and corroding the parts to which they are applied, others producing irritation or inflammation, and a few making a peculiar impression on the sentient extremities of the nerves, unattended by any manifest change of structure. The alkalis and concentrated mineral acids act in the manner first mentioned; alcohol, cantharides, and tartar emetic inflame or irritate the skin and other tissues to which they are directly applied; arsenic, euphorbium, and the diluted mineral acids affect the stomach in the same way. Of the third mode, by nervous impression, we have fewer unequivocal instances, but the impression of the aconitum napellus, or monkshood, upon the tongue and lips, when chewed, a sense of numbness and tingling, lasting for some hours, and unconnected with any affection of the general nervous system, is considered an example, as is also the

numbness of the end of the finger from contact with strong hydrocyanic acid, a numbness as from the local action of intense cold. It is seldom that death results from the local action of a poison, whether corrosive, inflammatory, or nervous; but the effects are radiated to distant organs, the suspension of the function of which is the cause of the fatal termination. Their remote action, therefore, is far the most important.

We have an example, and a very striking one, of this species of action in oxalic acid. It is corrosive, and cases are recorded in which it has produced perforations in the stomach; yet it never kills by destroying the function of that organ, for in some instances no trace of injury in the stomach could be found when death had followed a large dose of the poison. This acid has been known to kill a man in ten minutes, and a dog in as short a time as three minutes, but in such instances it was considerably diluted, which circumstance favored the remote action of the poison while it diminished, in the same proportion, its local action. Let us look for a moment at the way in which the influence of a poison is conveyed from one organ to another.

It is plain that there are but two ways in which this can be accomplished; the poison must be absorbed, or must act through the medium of the nerves upon distant organs. In the infancy of toxicology all poisons were believed to act in the latter way; but at present the other doctrine is more prevalent, while a recent theory, combining both views, represents that, although many poisons do enter the blood, their operation nevertheless is directly upon the nerves of the blood-vessels, and thus remotely through them upon the brain or other organs.

In the case of poisons that manifestly injure the structure of the organ to which they are applied, the affection of remote organs is undoubtedly sympathetic. Such is the fact with regard to the mineral acids, in which dilution lessens and even takes away altogether their remote poisonous action. But it is by no means so clear that distant organs sym-

pathise with the peculiar local impressions, styled nervous, which are unattended by any visible derangement of structure. It is in relation to this that the chief disputes among physiologists have arisen, and we agree with our author that the existence of this variety of action by sympathy is doubtful. At one time it was pretty generally received as the true explanation of the mode in which many poisons affected the system at large, and facts such as the following were thought to be inexplicable upon any other principle:

"Magendie, speaking of the pure hydrocyanic acid, compares it in point of swiftness of action to the cannon ball or thunderbolt. In the course of certain experiments made not long ago with the diluted acid by Dr. Freer, Mr. Macauly and others, to decide the true rapidity of this poison, several dogs were brought under its influence in ten, eight, five, and even three seconds; during an experimental inquiry I afterwards undertook for the same purpose, I remarked on one occasion that a rabbit was killed outright in four seconds; and Mr. Taylor has more recently stated, that he has seen the effects induced so quickly in cats, that there was no sensible interval of time between the application of the poison to the tongue and the first signs of poisoning. Strychnia, the active principle of nux-vomica, acts sometimes with a speed little inferior to that of hydrocyanic acid; for Pelletier and Caventou have seen its effects begin in fifteen seconds. Alcohol, according to Sir B. Brodie, also acts on animals with equal celerity; for when he intoduced it into the stomach of a rabbit, its effects began when the injection was hardly completed."

But, as remarked by Dr. Christison, the progress of physiological discovery has lately brought the soundness of these views into question.

"Some years ago Dr. Hering of Stuttgardt showed that the round of the circulation may be accomplished by the blood much more speedily than had been conceived before; for the ferrocyanide of potassium, injected into the jugular vein of a horse, was discovered by him throughout the venous system at large in the short space of twenty or thirty seconds, and consequently must have passed in that period throughout the whole double circle of the pulmonary and sys-

temic circulation. This discovery at once shook the validity of many, though not all, of the facts which had been previously referred to the agency of nervous transmission on the ground of the celerity with which the effects of poisons are manifested. More recently an attempt has been made by Mr. Blake to prove, that the circulation is so rapid as to admit even of the swiftest cases of poisoning being referred to the agency of absorption. Mr. Blake, who is altogether opposed to the occurrence of nervous transmission in the instance of any poison, has found that ammonia, injected into the jugular vein of a dog, was indicated in its breath in four seconds; and that chloride of barium or nitrate of baryta, introduced into the same vessel, could be detected in the blood of the carotid artery in about sixteen seconds in the horse, in less than seven seconds in the dog, in six seconds in the fowl, and in four seconds in the rabbit. These interesting discoveries, however, will not absolutely destroy the conclusiveness of all the facts quoted above in support of the existence of a sympathetic action."

No such difficulties attend the other doctrine. The action of poisons through the medium of the circulation is established by conclusive evidence, a portion of which our author thus sums up:

"First, they disappear during life from the shut cavities or other situations into which they have been introduced; that is, they are absorbed. Several clear examples of this effect have been related by Dr. Coindet and myself in our paper on oxalic acid. In one experiment four ounces of a solution of oxalic acid were injected into the peritoneal sac of a cat, and killed it in fourteen minutes; yet, on opening the animal, although none of the fluid had escaped by the wound, we found scarcely a drachm remaining. In recent times Professor Orfila has proved that various poisons, such as arsenic, tartar-emetic, and acetate of lead, disappear in part or wholly from wounds into which they had been introduced. Next, many poisons act with unimpaired rapidity, when the nerves supplying the part to which they are applied have been previously divided, or even when the part is attached to the body by arteries and veins only. Dr. Monro, *Secundus*, proved this in regard to opium; and the same fact has been since extended by Sir B. Brodie and Professor Emmert to wourali, by Magendie to nux vomica, by Coullon to hydrocyanic acid, by

Charret to opium, and by Dr. Coindet and myself to diluted oxalic acid. Magendie's experiment was the most precise of all: for, besides the communication with the poisoned part being kept up by a vein and an artery only, these vessels were also severed and reconnected by two quills. Farther, many poisons will not act when they are applied to a part of which the circulation has been arrested, even although all its other connections with the body have been left entire. This has been shown distinctly by Emmert in regard to the hydrocyanic acid; which, when introduced into the hind-leg of an animal after the abdominal aorta has been tied, produces no effect till the ligature be removed, but then acts with rapidity. An experiment of a similar nature performed by Mr. Blake with the wourali poison yielded the same result. Again, many poisons act with a force proportional to the absorbing power of the texture with which they are placed in contact. This is the criterion which has been commonly resorted to for discovering whether a poison acts through the medium of the blood. It is applicable, however, only when the poison acts sensibly in small doses; for those which act but in large doses cannot be applied in the same space of time over equal surfaces of different textures. The difference in the absorbing power of the different tissues has been well ascertained in respect to a few of them only. The most rapid channel of absorption is by a wound, or by immediate injection into a vein; the surface of the serous membranes is a less rapid medium, and the mucous membrane of the alimentary canal is still less rapid. Now it is proved of many poisons that, when applied in similar circumstances to these several parts or tissues, their activity is proportional to the order now laid down. Lastly, it has been proved of nux-vomica, that if the extract be thrust into the paw of an animal after a ligature has been tightened round the leg so as to stop the venous, but not the arterial circulation of the limb, blood drawn from an orifice in a vein between the wound and the ligature, and transfused into the vein of another animal, will excite in the latter the usual effects of the poison, so as even to cause death; while, on the contrary, the animal from which the blood has been taken will not be affected at all, if a sufficient quantity be withdrawn before the removal of the ligature. These interesting facts, which are capable of important practical applications, were ascertained by M. Verniere."

Still a question remains as to the action of the poisons after they have gained admission into the blood. It is not yet

perfectly clear that they are transmitted in substance to the organs affected by them. A different theoretical view has been taken of the facts by Dr. Addison and Mr. Morgan, and as it is ingenious we give it in the words of our author. Their theory is—

"That the action may really take place by the poison producing on the sentient extremities of the nerves of the inner membrane of the blood-vessels a peculiar impression which is conveyed through the nerves to the part ultimately affected. They have endeavored to found this theory upon evidence, that the poison is not carried beyond the venous system; or that, if conveyed farther, it is carried incidentally, and not for the purpose of impregnating the textures of the organ which suffers. The evidence they have brought forward on this head is chiefly the following. 1. Poisons which act on a particular organ at a distance do not act more quickly when introduced into the artery which supplies it, than when introduced into its vein, or even into the principal artery of a distant part of the body. 2. If a poison be introduced into a great vein with a provision for preventing its passage towards the heart, it will act with as great rapidity, as if no obstacle of the kind existed. Thus, if the jugular vein, secured by two temporary ligatures, be divided between them and reconnected by a tube containing wourali, the animal will not be affected more quickly on the removal of both ligatures, than on removing only the ligature farthest from the heart. 3. The arterial blood of a poisoned animal is incapable of affecting another animal. Thus, if the carotid artery and jugular vein of one dog be divided, and both ends of each reciprocally connected by tubes with the divided ends of the corresponding vessels of another dog, and extract of nux-vomica be introduced into a wound in the face of one of them,—the animal directly poisoned alone perishes. and the other remains unharmed to the last."

Poisons vary as to their remote action, something like an elective affinity being manifested by certain articles for particular organs. The heart, for example, is specially affected by tobacco and the upas antiar; the pulmonary capillaries by tobacco and tartar emetic; the brain by narcotics generally; the spinal marrow by conia and nux vomica; various glands by mercury; and the alimentary canal by arsenic. It is fur-

ther stated by writers on this subject that chromate of potash excites inflammation of the conjunctiva, and that ergot has been known to produce gangrene in different parts of the body, with dropping off of the toes.

The effects of poisons are modified by various circumstances, among which may be mentioned quantity, the state of aggregation, the chemical combination, mixture, difference of tissue, habit and idiosyncrasy, and diseased states of the body. Thus, arsenic in a large dose may prove speedily fatal, while in smaller quantities it may induce inflammation of the alimentary canal and a lingering death. White hellbore in minute quantities excites gastritis, and in larger doses brings on giddiness, convulsions and coma. The state of aggregation as a modifying circumstance is easily appreciated; poisons must be in solution, or at least be soluble, to exert their peculiar effects. The effect of chemical combination is seen in the case of all antidotes, in which poisons are rendered inert by their union with other bodies which themselves may be poisonous. The concentrated mineral acids and thecaustic alkalies are examples, both poisonous, but becoming harmless by combining. Mixture may increase the activity of a poison if thereby it is rendered more capable of reaching the circulation, but where the mixture is with the food in the stomach, as when taken during a meal, poisons are rendered less injurious by this circumstance. Arsenic is often ejected in such cases when it would be fatal on an empty stomach. Difference of tissue in the case of poisons which enter the circulation is a modifying circumstance, but where the poison exerts a corrosive influence the effect is nearly the same to what part soever applied. Carbonic acid is harmless in the stomach, but most deleterious in the lungs. The venom of the viper may also be swallowed with impunity, but if injected into a vein excites a train of alarming symptoms. Oxalic acid if not so concentrated as to produce irritation does not affect the stomach, and only becomes deleterious when it has passed from the digestive organs into the blood. Poisons which owe their power to absorption are most active when

introduced into a recent wound; next to this in contact with the serous tissues; then in the mucous passages; and least of all when applied to the skin. Habit and idiosyncrasy are to be taken into the account, as many cases on record, and the observation of every one must make evident. Mercury is poisonous in the smallest doses to some constitutions; ipecacuan brings on a distressing asthma in some; tartar emetic is followed by alarming symptoms in others; while, as to the effect of habit, we see persons daily indulging in potations of ardent spirits, and others swallowing quantities of opium, which would be fatal to the uninitiated.

Our author makes an application of these facts to practice, thus:

"As an appendix to what has been said respecting the physiological action of poisons, and the causes by which it is liable to be modified, I shall here state shortly certain applications to the treatment of poisoning.

In the instance of internal poisoning, the great object of the physician is to administer an antidote or counter-poison. Antidotes are of two kinds. One kind takes away the deleterious qualities of the poison before it comes within its sphere of action, by altering its chemical nature. The other controls the poisonous action after it has begun, by exciting a contrary action in the system. In the early ages of medicine almost all antidotes were believed to be of the latter description, but in fact very few antidotes of the kind are known.

Chemical antidotes operate in several ways, according to the mode of action of the poison for which they are given. If the poison is a pure corrosive, such as a mineral acid, it will be sufficient that the antidote destroy its corrosive quality: Thus the addition of an alkali or earth will neutralize sulphuric acid, and destroy or at least prodigiously lessen its poisonous properties. In applying this rule care must be taken to choose an antidote which is either inert in itself, or if poisonous, is like the poison for which it is given, a pure corrosive or local irritant, and one whose properties are reciprocally neutralized.

If the poison, on the other hand, besides possessing a local action, likewise acts remotely through absorption, or by an impression on the inner coat of the vessels, mere neutralization of its chemical properties is not sufficient; for we have seen above that such poisons act throughout all their chemi-

cal combinations which are soluble. Here, therefore, it is necessary that the chemical antidote render the poison insoluble or nearly so; and insoluble not only in water, but likewise in the animal fluids, more particularly the juices of the stomach. The same quality is desirable even in the antidotes for the pure corrosives; for it often happens that in their soluble combinations these substances retain some irritating, though not any corrosive power. When we try by the foregoing criterions many of the antidotes which have been proposed for various poisons, they will be found defective; and precise experiments have in recent times actually proved them to be so.

The other kind of antidote operates not by altering the form of the poison, but by exciting in the system an action contrary to that established by the poison. On considering attentively, however, the phenomena of the action of individual poisons, it will be found exceedingly difficult to say what is the essence of a contrary action, and still more how that counteraction is to be brought about. Accordingly, few antidotes of the kind are known. Physiology or experience has not yet brought to light any mode of inducing an action counter to that caused by arsenic and most of the irritant class of poisons. It appears probable that the remote operation of lead may be sometimes corrected by mercury given to salivation, and that the violent salivation caused by mercury may be occasionally corrected by nauseating doses of antimony. But these are the only instances which occur to me at present of antidotes for irritant poisoning which operate by counteraction, unless we choose to designate by the name of antidote the conjunction of remedial means which constitute the antiphlogistic method of cure. In the class of narcotics we are acquainted with equally few constitutional antidotes, although the nature of the action of these poisons seems better to admit of them. Ammonia is to a certain extent an antidote for hydrocyanic acid, but by no means so powerful as some persons believe;and I am not sure that in this class of poisons we can with any propriety mention another antidote of the constitutional kind.

On the whole, then, it is chiefly among the changes induced by chemical affinities that the practitioner must look for counter-poisons; and the ingenuity of the toxicologists has thence supplied the materia medica with many of singular efficacy. When given in time, magnesia or chalk is an antidote for the mineral acids and oxalic acid, albumen for corrosive sublimate and verdigris, bark for tarter-emetic, common salt for lunar caustic, sulphate of soda or magnesia for sugar of lead

and muriate of baryta, chloride of lime or soda for liver of sulphur, vinegar or oil for the fixed alkalis; and these substances act either by neutralizing the corrosive power of the poison, or by forming with it an insoluble compound.

"In recent times a new object in the treatment of poisoning has been pointed out by the discoveries made in its physiology. As it has been proved that many of the most deadly poisons enter the blood, and in all probability act by circulating with that fluid, so it has been inferred that an important object in the treatment is to promote their discharge by the natural secretions. In support of this reasonable inference it has been lately rendered probable by Orfila, as will be seen under the head of the treatment of the effects of arsenic, that it is of great advantage in some forms of poisoning to increase the discharge of urine.

"In the instance of external poisoning the main object of the treatment is to prevent the poison from entering the blood, or to remove it from the local vessels which it has entered.

"One mode, which has been known to the profession from early times, and after being long in disuse was lately revived by Sir D. Barry, and applied with success to man, is the application of cupping glasses to the part where the poison has been introduced. This method may act in various ways. It certainly prevents the farther absorption of the poison by suspending for a time the absorbing power of the vessels of the part covered by the cup. It also sucks the blood out of the wound, and may consequently wash the poison away with it. Possibly it likewise compresses the nerves around, and prevents the impression made by the poison on their sentient extremities from being transmitted along their filaments.

"Another mode is by the application of a ligature between the injured part and the trunk, so as to check the circulation. This is a very ancient practice in the case of poisoned wounds, and is known even to savages. But as usually practised it is only a temporary cure; as soon as the ligature is removed the effects of the poison begin. It may be employed, however, for many kinds of poisoning through wounds, so as to effect a radical cure. We have seen that most poisons of the organic kingdom are in no long time either thrown off by the system or decomposed in the blood. Hence if the quantity given has not been too large, recovery will take place. Now, by means of a ligature, which is removed for a short time at moderately distant intervals, a poison which has been introduced into a wound beyond the reach of ex-

traction, may be gradually admitted into the system in successive quantities, each too small to cause death or serious mischief, and be thus in the end entirely removed and destroyed. Such is the practical application which may be made of some ingenious experiments performed not long ago by M. Bouillaud with strychnia, the poisonous principle of nux-vomica.

"The last mode to be mentioned is by the combination of the ligature with venesection, deduced by M. Verniere from his experimental researches formerly noticed. Suppose a fatal dose of extract of nux-vomica has been thrust into the paw of a dog; M. Verniere applies a tight ligature round the limb, next injects slowly as much warm water into the jugular vein as the animal can safely bear, and then slackens the ligature. The state of venous *plèthora* thus induced completely suspends absorption. The ligature is next tied so as to compress the veins without compressing the arteries of the limb, and a vein is opened between the wound and the ligature in such a situation, that the blood which flows out must previously pass through, or at least near the poisoned wound. When a moderate quantity has been withdrawn, the ligature may be removed with safety; and the extraction of the poison may be farther proved by the blood that has been drawn being injected into the veins of another animal; for rapid death by tetanus will be the result. It is not improbable that in this plan the preliminary production of venous plethora may be dispensed with; and then the treatment may be easily and safely applied to the human subject."

The evidence of general poisoning is examined by Dr. Christison with great ability. The circumstances to be attended to are, as to the symptoms, their suddenness and rapidity, their regularity of increase, uniformity, beginning soon after a meal, attacking the individual in a state of health; of which it may be said, that no single one is of itself conclusive, but that a number concurring a strong suspicion of poisoning might arise, especially if there were at the same time moral proof of the crime. The same circumstances, or the absence of them, in other cases may dispel any unfounded suspicions of poisoning. We give the following interesting case, cited by our author, as in point:

"The Crown Prince of Sweden while in the act of reviewing a body of troops on the 28th May, 1810, was observed suddenly to waver on his horse; and soon afterwards he fell off while at the gallop, was immediately found insensible by his staff, and expired in half an hour. As he was much beloved by the whole nation, a rumour arose that he had been poisoned; and the report took such firm root in the minds of all ranks, that a party of military, while escorting the body to Stockholm, were attacked near the city by the populace, and their commander, Marshal Fersen, murdered; and Dr. Rossi, the prince's physician, after narrowly escaping the same fate, was in the end obliged to quit his native country. Now, no other poison but one of the most active narcotics could have caused such symptoms, and none of them could have proved so quickly fatal unless given in a large dose. It was proved, however, that on the day of his death the prince had not taken any thing after he had breakfasted; and an interval of nearly four hours elapsed after that till he fell from his horse. This fact alone, independently of the marks of apoplexy found in the head after death, and the warning symptoms he had repeatedly had, was quite enough to show that he could not have died of poison, as it was incompatible with the known action of the only poisons which could cause the symptoms. This is very properly one of the arguments used by the Medical Faculty of Stockholm, which was consulted on the occasion."

In addition to these evidences we are to inquire into the morbid appearances found in the body of the deceased, and finally to draw all the information that can be afforded by chemical analysis. We must determine first what the poison is, and subsequently whether it was administered during the life of the individual, or inserted into some part of his body after death. It is to be searched for in the stomach, the texture of the liver, in the blood, the urine, or in the matter ejected from the stomach, or known to have been partaken of by the victim as food or drink.

Some years ago a steam boat was ascending the Ohio towards Pittsburgh, with passengers as usual from various parts of the country. The subject of abolition happened to be discussed, and Southern gentlemen spoke their opinions freely in the hearing of a black waiter or cook. That night short-

ly after supper, a number of the passengers were seized with nausea, vomiting, and other symptoms of poisoning, which in the case of one or two persons were so violent as to create much alarm; they, however, all recovered. On investigation it appeared that those only were affected who had taken corn bread at supper. A suspicion was hence excited that the black man, apprised of the fact that southern people are apt to eat corn bread, had mixed arsenic with it. He was charged with the crime but made his escape by jumping into the river. Some of the bread was sent to us for analysis, and was carefully examined in the Laboratory of the Medical Institute. Besides answering to all the tests for arsenic in the most conclusive manner, it gave curious collateral evidence of containing a poison in killing all the flies about the room, which were attracted to the water in which we boiled the bread.

Although poison may not be detected in the alimentary canal, or the organs, or in any of the articles of food, moral evidence of poisoning sometimes brought out, may establish the charge. Christison relates the case which follows as being of that character:

"A man of doubtful character and morals, well acquainted with chemistry and medical jurisprudence, and of disordered finances, was known to harbour a design on a friend's wife, who possessed a considerable fortune. At last he one morning invited the husband to breakfast with him at a tavern; and they breakfasted, in a private apartment, on beef-steaks, fried potatoes, eels, claret, and rum. They had scarcely commenced the meal when his guest complained of feeling unwell; and soon afterwards he vomited violently. This symptom continued, along with excruciating pain in the belly, for a long time before the prisoner sent for medical aid; indeed he did not procure a physician till the sufferer had been also attacked with very frequent involuntary purging. The physician, who, before seeing his patient, had received the prisoners explanation of the apparent cause of the illness, was led at first to impute the whole to cholera caught by exposure to cold; but on returning at seven in the evening and finding the gentleman had been dead for an hour, he at once exclaimed that

he had been poisoned. On the body being inspected much external lividity was found, contraction of the fingers, and great inflammation, of the stomach and intestines, presenting an appearance like that of gangrene. On analyzing some fluid left in the stomach, no arsenic or other poison could be detected. The attention of the inspectors was turned specially to arsenic, because the prisoner was proved to have bought that poison, and to have made a solution of some white powder in his kitchen not long before the deceased died. The prisoner in his defence stated, that the deceased had been for some time much weakened by the use of mercury, and while in this state was seized with cholera; and he likewise attempted to make it probable that the man, in despair at his not recovering from a venereal disease, might have committed suicide. The council of physicians who were required to give their opinion on the case state on the contrary, that the deceased was a healthy man, without any apparent disposition to disease; that there was no pretext whatever for supposing suicide; that the inflammatory state of the stomach and bowels supplied strong probability of poisoning with arsenic, but not certain evidence; that acute gastritis from natural causes is always attended with constipation; that the deceased presented symptoms of stupor and other signs of derangement of the nervous system remarked in rapid cases of poisoning with arsenic; that cholera is very rare at the end of November, the season when this incident occurred; and that the poison might well be discharged by vomiting. Although all the prisoner's statements in defence were contradicted by satisfactory proof, and the medical evidence of poisoning was supported by a chain of the strongest general circumstances, the crime was considered by the court as not fully proved, because the prisoner could not be induced to confess, and because poison was not actually detected in the body. But on account of the very strong probability of his guilt, he was, in conformity with the strange practice of German courts in the like cases, condemned to fifteen years' imprisonment. In this instance—considering the kind of symptoms, their commencement during a meal, the rapidity of death, the signs of violent inflammation in the stomach after so short an illness, and the facility with which the absence of poison in the contents of the stomach may be accounted for, more especially if it be supposed that the poison was administered in solution,—I consider the medical evidence of death by poisoning so very strong, that, the general evidence being also extremely strong, the prisoner's guilt was fully demonstrated.

The moral evidence is of the greatest importance in questions of the sort. Thus, a woman was seized early in the morning with symptoms indicating that she had taken an acrid poison. A farmer, who had some knowledge of medicine, being called to see her, learned that she had breakfasted on porridge made by her husband of corn meal, and on analysis the meal proved to contain arsenic. Again; a woman was found who had evidently been poisoned with nitric acid; but whether she had taken it to commit suicide, or had received it from another was to be determined by circumstances. Stains were discovered on her face as if the acid had been spilled there in the act of forcing it down her throat, and on further examination similar stains were found on the hands of her husband, fixing the crime of murder upon him. In another case, a man was accused by a woman of attempting to poison her by putting copper into her soup. Chevalier examined the soup and detected an abundance of the poison in it; but not a trace of the copper could be discovered on the surface of the pot in which the soup had been boiled, or in the soup still remaining in it. It was consequently clear that the woman, who had some spite against the man, had herself introduced the poison.

(TO BE CONTINUED.)

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Rupture of the Uterus and Abdominal Parietes.—Cæsarean Operation performed with Success, both for the Mother and Infant. Thirteen months afterwards, Rupture of Uterus and Abdominal Parietes, from a second Pregnancy; Birth of the Infant by this spontaneous Opening, and perfect Recovery of the Mother. By Dr. Pearl, Director of the Obstetrical Institution of the city of Hildesheim.

A news vender, ætat, 28, enjoying good health, both during her early infancy and adult life, but deformed from rickets, in whom the catamenia appeared at the age of 13, entered the midwifery Hospital of Hildesheim, far advanced in pregnancy, shortly expecting to be brought to bed. A careful examination satisfactorily proved that the great diameter of the true pelvis, "du petit basin," was only two and a-half inches. It was, therefore, probable that she could only be delivered by the Cæsarean operation. Labour set in by powerful but useless pains, and the fœtus furnishing abundant proofs of life, the operation was determined on. Accordingly an incision was made in the direction of, and upon the linea alba; the peritoneum and the uterus were opened upon a director (sonde connelee,) and without the slightest lesion; a living female child, well formed, and arrived at full time, was drawn forth. By a slight traction upon the umbilical cord, the placenta was extracted through the same opening. The hemorrhage did not amount, at most, to a pound of blood. The edges of the uterine wound were then brought together as closely as possible by means of six "points" of suture, care-

fully avoiding the peritoneum. The lips of the tegumentary wound were placed in apposition, leaving, however, a small opening at the inferior angle, for the escape of any fluid that might otherwise accumulate within. During the operation, which was borne with the most heroic courage, the patient experienced only one slight nausea; she was not so much exhausted by it, and declared that she felt herself quite well. On the day following, the infant was applied to the breast, which it took with evident satisfaction. The issue of this accouchment was of the happiest nature, the mother suffering but a slight accession of fever, caused by an accumulation of milk; her infant refusing the breast, from being attacked with trismus nascentium, of which it died on the ninth day. The mother recovered perfectly, but slowly; at the expiration of two months from the operation there was complete cicatrization of the wound; at that of eight months, a reappearance of the catamenia; and in the ninth month, she left the hospital in excellent health, at which time the cicatrix was five inches in length and from half to three-quarters of an inch in width. In the beginning of the following year, she again became pregnant. During the first four months which followed, she enjoyed such good health, that she, for the first time noticed her state, by the movements of the infant in the twenty-first week. These movements were accompanied by violent dorsal pains, lasting but for a few minutes only; she paid but little attention to them, from having experienced similar at the age of sixteen. She now noticed an ulcerated spot upon the skin, which was slightly swollen; it was situated at the right side of the abdomen, at the distance of the width of the hand from the Cæsarean cicatrix. This ulceration daily extended in points, pouring out pus, and sometimes blood, causing but little or no pain; simple dressing was applied.

On the 14th of July, 1843, having taken cold, she had an access of fever, accompanied with pains in the sides, back, and abdomen, for which Dr. Shrœder was called in; he found that part of the abdominal integuments, which we have described, œdematous, and of a reddish-brown colour, and about the width of the hand in extent. The fœtus could be so distinctly felt through the abdominal parietes, that on first consideration it was considered to be extra-uterine. A solution of muriate of ammonia in liquorice juice was ordered, and the wound dressed with a mild ointment. The same evening, pains having the character of labour-pains, set in, but disappeared on the 16th. The muriate of ammonia was continued, causing a sensible diminution of the cough, and febrile excite-

ment. In a short time, the patient was able to leave her bed; the movements of the fœtus were no more felt.

On the 18th, she experienced a pressing desire to make water, and go to stool; she arose, made a few steps forward, and called for her sister to hand her the vessel, when suddenly a crack (*craquement*) was heard. accompanied with a rupture of the abdominal parietes, through which the fœtus, enveloped in its membranes, could be felt. In this fearful dilemma, alone, and left to her own resources, with both hands, she retained the infant in the rupture. until help arrived. A midwife was called, who found the patient standing, the membranes being torn, she had merely time to take away the infant, which was dead. Dr. Shrœder, who arrived one hour after, found a large rent in the abdomen, situated below the umbilicus, of a transverse direction; the membranes, and a part of the omentum, protruded at the right, whilst the cord, and the placenta, still adhering to the uterus, appeared at the left. Fearing lest upon the extraction of the placenta, the intestines might escape, he called in Dr. Prael, on whose arrival, the patient, notwithstanding all she had suffered, was yet in a state not to be despaired of. She was pale, and the pulse was small; but there was not any thing in her manner, or the expression of her countenance, which indicated particular danger; the hemorrhage had not been very abundant, the wound smarted a little, but was not painful. The solution of continuity was at least five inches long, extending one and a half inches to the left side of the cicatrix, and three and a half inches to the right; its lips were so separated, that at first view, it was not easy to say whether it was transverse or perpendicular; its edges, particularly the inferior, were œdematous, swollen, turgid, turned inwards, and unequal; below this opening, and about an inch from its edge at right, there were two patches of extravasted blood, both transverse in direction, and one inch and a half in length. At the right of the centre of the rupture, a tumour, of a violet colour, and of the size of the head of a new born infant, was seen; it was the membranes, filled with coagulated blood: behind and above this, a portion of the omentum, as long as the hand, and the width of three fingers, protruded, the placenta in part visible, and a considerable portion of the cord filled the left side of the wound; there was no escape of the intestines. As the cord was so thin, that it could not bear the slightest traction, without danger of being torn, it was necessary to introduce three fingers into the uterus, through the abdominal opening, in order to remove the placenta. The uterus had

already so much contracted, that it was quite impossible to learn, with certainty, the direction which the rupture had taken in it; the placenta, which was attached to the posterior wall of the uterus, gave trouble in its removal, and caused considerable pain to the patient.

During this operation, no part of the intestines protruded. In order to shun any such accident, the operator made the examination as short as possible, confining himself to washing away the blood, bringing the edges of the uterine opening together, and returning the omentum in the best way he could. The edges of the abdominal wound were so puckered (*plissès*), swollen, unequal, and œdematous, that sutures could not be used, they were therefore held together, by adhesive straps, placed perpendicularly. Having cut away with a scissors a small portion of the peritoneum, which was only held by a few filaments, at the right angle of the wound, the dressing was completed by soft compresses, and a bandage. An examination of the genital organs was next proceeded with, but nothing was found in the vagina. The orifice of the uterus was smooth; the os was dilated to about the width of two fingers, through which there was no flow of blood, or any other fluid. The reaction which followed so serious a lesion, was held within due limits, and there was but little fever. The state of the wound, however, gave rise to the most serious apprehension. At the removal of each dressing, a considerable quantity of sanious sanguineous fluid was discharged; its edges assumed an unhealthy aspect, and the patient complained of severe pains in the loins.

The opening, becoming gangrenous, gave issue to a very fœtid sanious discharge; however, with the exception of the stools, all the functions were normally performed, and the lochiat ransmitted through the natural passage. Quinine was administered, under the exhibition of which the aspect of the wound gradually changed, assuming a healthier appearance, and pus of a good quality was secreted. The quinine was now obliged to be discontinued from an attack of rheumatism of the left side, but was afterwards administered with good effect, notwithstanding an abscess formed in the left inguinal region, carrying in its train a swelling, and paralysis of the leg of that side. Emollient poultices were applied, but the œdematous swelling progressed, extending over the entire abdominal integuments. The process of cicatrization, which had reduced the wound to the size of a two-franc piece, was also manifestly arrested. By the aid of tonics, antiseptics, and a nutritious regimen, the œdema disappeared in the

course of eight days; sleep and appetite now returned, her strength augmented, cicatrization recommenced, the quantity of pus daily diminished, and there only remained a few cutaneous ulcerations in the neighborhood of the rupture, which were soon healed by the application of the nit. argenti. In one month after she was so far re-established in health as to be able to quit her bed; and in fifteen days more, the wound was reduced to the diameter of a one-franc piece.

She was now enabled to be engaged in domestic affairs, and walk for half an hour each day. On the 5th of October, cicatrization was complete, she felt no pain, and was fast regaining her *embonpoint*. The catamenia appeared in six weeks after the accident, and again towards the end of October without pain, but less abundant than the first time. She now left the hospital.

This extraordinary case is so much the more interesting, as it is perhaps the only one in the annals of medical science. One exhibiting some analogy is related in an old English work, little known, published by the Society of Edinburgh.

The translator, not without some difficulty, from the indefinite description given of this work, found the paper referred to in vol. ii. of the "New Edinburgh Essays," p. 338, published in 1756. It was read before the Society by Alexander Monro, senior, and is thus given:

"In April, 1736, Elspet Grant, in the parish of Moy, being with child, took her labour pains. After they had continued three days with the child in birth, two cracks, as if the rafters of the house had broken, were heard about the sick wife, and her belly was rent from near the navel, with a squaint downwards, and to the left side to near the share bone. At this rent the child came into the world, the after-burden was brought away, and the entrails were seen. The woman recovered."—*Dub. Jour.*

From Mr. Paget's learned Report on the Progress of Human Anatomy and Physiology in the years 1843–4, in the British and Foreign Medical Review, we make the following extracts:

Color of the Blood.—Some experiments by Scherer both confirm the opinion of Nasse, that the change from the arterial to the venous colour of the blood depends in a great

measure on the form of the blood-corpuscles, and explain most of the observations of Dr. Stevens on the effects of distilled water and salts upon the blood. Their general conclusions are; 1. That when fresh-stirred and bright-red ox-blood is mixed with distilled water, it acquires a dark-red colour, and its corpuscles, by imbibing water, become spherical, and at last vanish. But, 2, That if, after the change has begun, and not gone far, a concentrated solution of a neutral salt be added, the blood-corpuscles again acquire their natural form, and the bright-red colour is restored. 3. That when oxygen is passed through blood darkened by the addition of distilled water, it is not changed in colour, and the blood corpuscles do not reappear; but that the same kind of blood, mixed with a small quantity of milk, or oil, or finely-powdered chalk, or gypsum, soon regains its bright-red colour. 4. Again, by the long-continued contact of concentrated saline solutions with blood-corpuscles they become jagged and decomposed, and the blood becomes black; and those which have been reddened by the action of salts, become black again on being expanded by the imbibition of water. 5. By adding carbonic acid to bright-red blood, its corpuscles change their biconcave for a biconvex form, and at the same time its colour changes from red to black. So that there are always changes in the shape of the blood corpuscles, coincident with the changes in the colour of the mass of blood; whenever they are dilated, as by distilled water or carbonic acid, the dark colour is produced; whenever they are contracted into the biconcave form, the bright-red colour is restored.

Mulder, also, espouses the opinion of the changes of colour in the blood being immediately due to physical rather than to chemical changes of the corpuscles, and has added many facts to those just quoted in disproof of the opinion of Liebig, that the changes are due to the alternate production or the carbonate of the protoxyde, and of the peroxyde, of iron in the blood-corpuscles, as they pass alternately through the systemic and the pulmonary capillaries. His chief facts are—1. That the elementary composition of the colouring matter is the same, whether obtained from arterial or venous blood, viz., C. 44, H. 44, N. 6, O. 6, Fe. 2. That the change from dark to bright blood is effected as completely by the agency of a neutral salt as by oxygen. 3. That if the iron were present in the blood as an oxyde (and especially as a peroxyde), it should be easily extracted by weak acids; but he has found that well prepared hæmatine may be digested in diluted hydrochloric or sulphuric acid for several days without the

iron in it being in the least diminished. After being so treated he has obtained, after incineration, the regular proportion of 9-49 per-cent. of oxyde. If strong sulphuric acid be poured on dried blood, or dried pure hæmatine, and kept on it for some days, and then water be added, hydrogen is evolved, and sulphate of peroxyde of iron is found in the solution, which could not happen if the iron had been at first in the form of peroxyde. 5. The iron may thus be all extracted from the blood, or from hæmatine, (though not as some say, without affecting the colour,) and the other constituents may be obtained in a separate form. Numerous analyses of this constituent, by Van Goudover, regularly yielded the same equivalents of the elements, viz., C. 44, H. 44, N. 6, O. 6; but if the iron had been united with this in the form of Fe. 2, O. 3, and in the proportion of one equivalent to two, there should have remained only four and a half equivalents of oxygen.

Mulder concludes, therefore, that iron is present in hæmatine, as iodine is in sponge, or sulphur in cystine, or arsenic in cacodyl. His notion of the mode in which the changes of colour are effected is, that when the corpuscles of the venous blood are exposed in the lungs, oxy-proteine is formed by the oxydation of the fibrine-proteine of the liquor sanguinis, or, perhaps, by the oxydation of the outer layer of the cell membrane of the corpuscles. If formed on the liquor sanguinis, its peculiar plasticity would lead to its being deposited in a thin layer on the corpuscles. In either such case, the dark corpuscles would, after respiration, be invested by a thin layer of white and imperfectly transparent oxy-proteine, or buffy coat, through which they would look bright red, as dark blood does when contained in a vessel of milk-white glass. But, in the systemic capillaries, the oxy-proteine may be consumed in nutrition, and the darkness of the corpuscles will then again appear unveiled.

Moreover, since it appears that, in the biconcave form, the corpuscles by reflecting more light, are always bright, and in the biconvex form always dark, it may be that in the arteral blood they are not only *buffed* but also *cupped*, by the oxy-proteine, [by the plastic properties of which, morover, it is easy, on this pretty theory, to explain the ready adhesion of the corpuscles in inflammatory blood.] Diluted acids, which make bright blood dark, may do so by making the outer layer of the corpuscles transparent, as they do fibrine before dissolving it; and concentrated solutions of neutral salts may make it bright by making the same layer contract.

Animal Heat.—An extensive series of observations has been made by M. Roger on the temperature, of children in health and various diseases.

In nine examinations of infants from one to twenty minutes after birth, the temperature, (observed in these and in all other cases, in the axilla,) was from 99-95 to 95-45. Immediately after birth the temperature was at the highest; but it quickly fell to near the lowest of those above stated; but, by the next day, it was again completely or nearly what was before. The rapidity of the pulse and of respiration appeared to have no certain relation to the temperature.

In thirty-three infants of from one to seven days old, the most frequent temperature was 98-6; the average was 98-75; the maximum (in one case only;) 102-2; the minimum, (also observed only once 96°-8. All the infants were healthy. The frequency of resperation had no evident or constant relation to the temperature. A few of the infants were of weakly habit; their average was 97-7, the others were strong, and their average temperature was 99°-534. The age of the infant (in this short period,) had no influence on its temperature; neither had its sex, nor its state of sleep or waking, nor the period after sucking.

In twenty-four children, chiefly boys, four months to fourteen years old, the most frequent temperture was above 98°-6; the average was 98°-978; the minimum was 98°-15; the maximum 99°-95. The average temperature of those six years old or under, was 98°-79; of those above six years old, 99°-158. The average number of pulsations in the minute was in those under 6 ears old 102; in those above that age 77; yet the temperature of the latter was higher than that of the former or of younger infants. There was no evident relation between the temperature and the frequency of respiration; nor, in a few examinations, was the temperature affected in a regular way, by active exercise for a short time, or by the stage of digestion.

As already said, in all the examinations from which these results were obtained, the thermometer was held in the axilla; comparative examinations proved that the temperature of the axilla, (though lower than that of internal organs,) was higher than that of any other part of the skin. Of the other parts examined, the warmest was the abdomen, then in succession, the cavity of the mouth, the bend of the arm, the hands, the feet; of which last, the average temperature, in four examinations was only 87°-35. [These results correspond sufficiently with those obtained by Dr. John Davy.]

In diseased states, (to the illustration of which the greater

part of the memoir is devoted,) the temperature of the skin in children may descend to 74°-3, and may ascend to 108°-5. Its range of variation is therefore much greater than in adults, in whom M. Andral found it to vary in different diseases not more than from 95° to 107°6.

Dr. John Davy also has contributed some miscellaneous observations on animal heat. They are made with a thermometer placed beneath the tongue. In eight old men and women, all, with one exception, between eighty-seven and ninety-five years of age, the temperature was 95° or 98°-5; therefore not below the average of persons in like circumstances. But two observations showed, that in exposure to external cold, the temperature was more reduced than in young persons, in one case to 95°, in the other to 96°-5. A few observations were also made on persons working in rooms at a temperature of 92°; in one case the temperature under the tongue was 100°, in another 100°-5; and in a third, with an external temperature of 73°, it was 99°. The same slight variations of the temperature of superficial parts in accordance with changes of external temperature were shown by repeated observations on a healthy man in the different seasons at Constantinople. By moderate exercise the temperature was raised, (but not above the general average,) on the surface of the extremities, and was not affected in the internal parts.

Some interesting observations on the effects of hot moist air upon the body were made by M. Constantin James, at the baths or stoves of Nero, called formerly Posidianæ, near Pozzuoli. The physiological part of his account is, that he had first to traverse a passage, leading to the hot springs, about seven feet high, and three wide, in which the temperature in the upper strata of air was 104°F. in the lower 91°-4. After going along this for about fifty yards, the passage narrowing and winding, the temperature in the different strata became 109°-4, and 98°-6, and was very inconvenient; his pulse increased from 70° to 90 times in the minute. After a few instants, as he went on, his pulse became 120°, his temporal arteries beat forcibly, his respiration was short and panting, his body bedewed with sweat; he was obliged to stop every instant, and put his head to the ground, where he could breathe the least heated air. The temperatnre had now become 118°-4 in the upper, and 111°-4 in the lower strata, and the atmosphere was filled with dense vapour. Still descending towards the spring, the atmosphere became still more suffocating; his head felt bursting, he was utterly exhausted, and had nearly lost his consciousness; his pulse

could not be counted. The temperature of the spring was 185°, while that of the atmosphere was 122°. Summoning all his strength, the experimenter made his way back through the passage, in which he had been for nearly a quarter of an hour, and of which the whole length was about 120 yards. On coming into the cold air he nearly fainted, and staggered like one drunk, till he was relieved by bleeding at the nose; but through the evening his pulse was 100, he was feverish, had ringings of the ears, and a kind of creeping in the limbs. After a good night's rest he was completely recovered. The water from the spring was clear, and not charged with any gas; neither was any deleterious gas mingled with the heated air.

M. James compares these observations with those made on rabbits and other animals, by M. Magendie. The chief results of these experiments were as follows: two rabits, of the normal temperature of about 102°-2 were placed in two stoves, one at 212°, the other at 140°; the first died sooner than the second, but the temperature of each at the instant of death was the same, namely 111°-2. And the same experiment often repeated, showed that whatever were the ratio at which the heat was applied, the animal died when this increase of nine degrees was attained. In birds whose normal temperature [in some,] is 111°-2, i. e. the same as that at which mammals die, death ensues upon the same increase of nine degrees of temperature; they die when their blood is at 120°-2.

If when an animal is near dying from the effect of heat, an artery be opened, its blood is as black as that of a vein, it does not congulate, and does not become bright on exposure. Exposed to dry heat, the animal loses much weight by evaporation before it dies; exposed to the moist heat it loses no weight, but dies sooner. In the vapour baths of Nero, M. James was almost suffocated in a temperature of 112°, while in those of Testaccio, in which the air is dry, he was but little discomforted by a temperature of 170°; and this has been confirmed on many animals. The quantity of weight lost by evaporation in hot dry air is directly proportionate, not to the temperature, but to the duration of the exposure, and the rate of loss is the same during all the times. After death, the lungs and heart are found in the contrary state to that seen after death from cold; they are empty from blood, and it is collected and extravasated at the surface of the body.

Analysis and properties of the gastric fluid.—The most remarkable results of M. Blondlot's investigations relate to the composition of the gastric fluid, and different as his conclusions may be from those usually received, yet the large quantity of fluid he was enabled to collect in a purer state than any one hitherto has collected it, entitles his account to every consideration. He very carefully distilled on a sand-bath 3875 grains of pure gastric fluid obtained after feeding his dog with raw meat; he repeated the distillation, and repeated the whole experiment, several times, with the gastric fluid of other animals as well as of the same dog, and the constant result was, that the product of the distillation did not once exhibit the slightest acid reaction; but the residue in the retort was always strongly acid. It was thus proved that the acid of the gastric fluid cannot be either the hydrochloric or the acetic, for both these are volatile at the boiling point of water, and would have distilled over.

The general conclusion of his analysis is, that the gastric fluid is composed of ninety-nine parts of water, with one part of super-phosphate of lime, super-phosphate of ammonia, chloride of sodium, mucus, an aromatic, and a peculiar, principle.

Similar results were obtained from the analysis of the gastric fluid of several animals.

Besides these experiments concerning the chemical properties of the gastric fluid, M. Blondlot relates others, which add to the evidence already known, that the real digestive property of the fluid depends, not on its obvious chemical qualities, but on an organic principle. If exposed to a temperature between 104° and 122° F. or higher, it entirely and irrecoverably loses its digestive powers, although apparently, and as to analysis, unchanged. Kept from the air, the gastric fluid retains its active properties for at least two years; but, exposed to the air and a moderate temperature, it putrefies in five or six days, although the chyme which it forms from nitrogenous organic substances may be preserved for two or three months without apparent change. The precipitation of all the lime which it contains does not affect its activity; neither are its chlorides indispensable; but whatever much alters its organic constituents, (such as heat, strong alcohol, or strong acids,) or removes them, (such as animal charcoal, tannic acid, chlorine, or acetate of lead,) destroys all the digestive properties.

Digestive properties of the gastric fluid.—Some singular evidence of these is furnished by MM. Bernard and Barreswill

who have found that nutritive substances injected in simple aqueous solution into the blood are not assimulated: but are assimulated if dissolved by the aid of the gastric fluid. Among other experiments are these: portions of cane sugar, albumen, and gelatine, seven and a half grains of each, and severally dissolved in water, were injected into the jugular veins of three dogs. Three hours after, the urine of each was examined, and in each the injected substance was found. Under other similar conditions, the same quantities of the same substances dissolved in gastric fluid were injected, and three hours after, gelatine was detected in the urine of the dog into whom it had been injected, but not a trace of albumen or sugar in the urine of either of the others. Three dogs were then fed exclusively and respectively on gelatine, albumen, and sugar; and the first alone could ever be detected in the urine. The authors fed themselves in the same way and obtained the same result; and they conclude (as others presently to be mentioned do) that gelatine is not assimilable and therefore not nutritive.

Among the experiments which M. Blondlot made to determine the mode in which the gastric fluid, in or out of the stomach, acts on different animal substances some afforded novel and interesting results; A. He shows that coagulated albumen owes its long resistance to the digestive fluid only to its compact form. When coagulated in very fine particles (as by pouring white of egg beaten into a froth, into boiling water) it is digested as quickly as soft fibrine. B. He adds further evidence that the action of the stomach in coagulating milk is not due peculiarly to its digestive principle, but to its acid, which acts like the lactic acid developed from the sugar under the influence of rennet or any other decomposing azotized compound: C. The effect of the gastric fluid on bones, observed both on the bones in their entire state, and on their animal and inorganic constituents separately, is, that first, it very slowly disintegrates the animal matter, attacking, them from the surface, and then, also very slowly, disintegrates and reduces the earthy matter into a fine chalky powder, but without either dissolving or decomposing it. The earthy matter not being dissolved proves that no hydrchloric acid had acted upon it: and in its minutely divided state it all passes through the intestines and is discharged with the fæces.

The result of many more of his experiments of this kind are interesting. They confirm Mr. Beaumont's, and appeared to M. Blondlot to show that of all the simple alimentary sub-

stances, those which are fluid at the ordinary temperature of the stomach, and those which are easily soluble (in the ordinary manner of solution) in its secretion, such as fluid albumen, sugar, gum, pectine, &c., are at once absorbed by the veins; and that others, which are not liquid nor easily soluble, such as fibrine, coagulated vegetable and animal albumen, caseine, gelatine, &c., are, in only a very small proportion, if at all, dissolved, the action of the gastric fluid on them being limited to the softening of them, so that they are reduced into very minute particles which (out of the stomach) appear like a very fine precipitate. The same general rule is said to be observed in the digestion of the compound alimentary substances, both animal and vegetable; the fluid and easily soluble parts cannot be said to be digested, for they are at once absorbed by the stomach; the rest are softened and reduced into very minute particles, which are carried into the intestines, without any change in their chemical constitution, and are, in this state absorbed by open mouths of the lacteals, visible with the naked eye, at the extremities of the villi(!) This act of softening is, in some cases, due merely to the acid of the gastric fluid: e. g. in the case of parenchymatous tissues, and succulent fruits and roots, which are similarly softened, at the same temperature, in acidulated water; in the cases of fibrine, coagulated albumen, &c., it is the effect of the *peculiar* mode of action of the gastric fluid.

In any case, chymification is, in M. Blondlot's opinion, no *solution*, but a *division* of the aliment; it undergoes no kind of decomposition.

The physical position of man in creation.—The law of unity of type and function in animals, applied in the preceding pages to the function of the cerebro-spinal axis in man, has shown (what is necessarily deduced from the law itself) that the transition of structure and function is gradual, and consequently, no strong line of demarcation can be drawn between the manifestations of its various functions. The automatic acts pass insensibly into the reflex, the reflex into the instinctive, the instinctive are *quasi* emotional, the emotional are intellectual. This gradation of structure and function observed in the nervous system, is observed also with reference to all other structures of his body. Man is at the head of a vast ascending scale of animal life, so extended in its connexions downwards, that for the present purpose it may be considered as infinitely extended. With our existing knowledge of

of the uniformity of the laws of creation, the deduction is absolutely incontrovertible, the scale of being is not truncated at man, and that beyond him there cannot be a dark, unpeopled void. The law of gradation of development vigorously pushed to its legitimate conclusions points out an infinite gradation of being *above* and *superior* to man. That we cannot see such beings, nor demonstrate their existence is a necessary result of our position in the scale, and no proof whatever of their nonexistence. The worm knows nothing of man, his works or his actions: nothing of the sun or the stars, of the beings swarming around it; and so with reference to the spiritual world, the world around and above *us*—our organs may be and doubtless are, as imperfect as those of the worm with reference to the world around and above *it*. Man is then at the foot of another scale of beings, the highest of which *at least*, as far transcends man, as man transcends the zoophyte. This proposition, I repeat, is the unavoidable inference from our present physiological knowledge, and is a complete answer to those good, zealous, but not wise men, who think science leads to scepticism and irreligion. It leads to a rational faith utterly opposed to arrogant infidelity.—*Dr Laycock in Brit. & For. Med. Reveiw.*

Raciborski on Puberty.—He next notices (p. 77) cases of extraordinarily precocious menstruation of which he has collected many cases from various authors, and finds in the theory he has adopted with reference to the cause of menstruation, a ready explanation of these exceptional occurrences. Menstruation which is the index of aptitude for generation appears last in the train of changes, and when all the organs have acquired their due development. In some countries these changes take place earlier than in others, and there seems to be no reason for regarding menstruation during infancy as any thing else than a highly exaggerated degree of precocious puberty.

In both cases the premature appearance of the menses seems to depend on the precocious development of the ova and of the Graafian follicles, which give, as we know, the impulse to all the other organs of the reproductive apparatus: only in one case this precocity evidently depends on the influence of climate or temperature, while in the other it appears to be the effect of congenital peculiarities. One circumstance in favor of this opinion is the invariable coinci-

dence of development of the mammæ and external genital organs with the hemorrhage, in cases of premature menstruation. These phenomena, indeed, do not occur until the follicles of Graaf are already on the point of attaining that full degree of development which characterizes the period of puberty; they are absent, or exist only in a rudimentary degree, whenever the development of these follicles is impeded by some primitive disposition of the economy; by diseases, or by the congenital absence of the ovaries, or their removal.

In support of this opinion too, he observes that though the Graafian follicles are usually not formed until after birth, he yet found a perfectly developed Graafian vesicle on one occasion in the ovary of a child still-born at the seventh month of pregnancy.

Now every thing is in favor of the supposition that had this child continued to live, it would have presented several follicles at the conclusion of pregnancy, and it is very probable that if the same degree of vital energy had continued, it would soon have arrived at the end of some months of extra-uterine life; at that state which is not usually attained before the age of fourteen years. That which we observed as an exception to the general rule in the above-mentioned fact, may occur in all cases of premature menstruation. It may be said, indeed, that in all cases of this kind, the most important anomaly consists in the premature development and precocious maturity of the ova; the menstrual hemorrhage is only the necessary consequence of this anatomical and physiological peculiarity."

It must not however be inferred that the converse of this holds good, and that in women in whom the occurrence of menstruation does not take place till a very late period, there is a corresponding delay in the maturity of the ova and Graafian follicles.

"So far indeed, from that being the case, these facts seem only to confirm what we shall hereafter prove more directly, namely, that the menstrual hemorrhage is only a secondary phenomenon attendant on menstruation strictly so called, and that the capital phenomenon of this function consists in the periodical maturity and elimination of ova. There are some women in whom nothing else occurs besides this phenomenon and authentic cases are on record of women who have given birth to several children without having ever menstruated. Still stronger reasons are there for admitting the possibility of those cases in which, after the ovaries have for a length of time performed their monthly function unattended by any other

phenomenon, menstrual hemorrhage at length occurs. Many other signs of puberty no less valuable than the flow of the menses serve to indicate the existence of that state when the menstrual flux is absent.

Long continued illness, it is well known, often has the effect of retarding the epoch of puberty, even after some of its precursory symptoms have appeared, or of suppressing the menstrual flux, although it may have already occurred once or twice. In such cases, the development of the Graafian follicles is found to have been arrested, as was observed by M. Raciborski in the case of two chlorotic girls who died between the ages of sixteen and seventeen; and in whom the Graafian vesicles, though as numerous as they should be at the period of puberty, were of extremely small size. In women in good health, however, menstruation when once established continues for the most part to recur regularly every month. Having noted the interval between the first two menstrual periods in eighty-seven women, M. Raciborski found that, in fifty eight, this interval did not exceed one month. In two women the second menstruation followed six weeks after the first; in four, after an interval of two months; in five, after three months, in four, after four months; in one, at the end of five months; in another, at the end of eight months; in three, at the end of one year; and in another, two years had elapsed. From these data it appears that, from the first appearance of menstruation, it recurs regularly every month in about two thirds of all healthy females.

Festival to Commemorate the introduction of the Potato.—Several of the German States have, we learn from the *Atheneum*, instituted feasts in honor of the introduction of the potato; and the anniversary of its importation has just been held as a jubilee at Bavaria. At Menterschwaige, near Munich, a festival was observed on the occasion in which dishes of the poor man's especial root, variously dressed, had the place of honor on the table:—while the bust of Sir Francis Drake, crowned with garlands of oak, and presented to the commune, for the occasion, by its sculptor Schwanthaler, occupied the centre of the hall. In France, a monument is about to be erected to Parmentier, commemorating its introduction into that country. It may appear to our readers, that the honor paid to the memory of Drake was really due to Raleigh; but it is probable that the Germans are literally correct. The

first colonists, sent out by Raleigh, were disheartened when Drake touched at Virginia, and he consented to bring them home. Lane, the governor, who is believed to have brought with him the first tobacco, may, and probably did, bring the first potato; if so, though indebted to the enterprise of Raleigh for the discovery, it was Drake's ship that actually introduced the first root.

Proportion of the Insane.—Dr. Thurnam read a paper on the Statistics of Insanity, designed to refute Esquirol's theory that women were more predisposed to insanity than men in the proportion of 38 to 37. The discussion of this point turned chiefly on the corrections necessary to be made in statistical tables of insanity by taking into account the rates of mortality, the proportions of male and female population, and the probability of recovery in the two sexes. Dr. Thurman came to the conclusion that Esquirol's proportions ought to be reversed; but the question ultimately resolves itself into whether more confidence is due to the statistical returns of insanity in France or England..

In the discussion that ensued, Mr. Tuke entered at length into an examination of the alleged disproportion of insane among the Society of Friends, tending to prove that the predisposition to mental alienation in that society is less than in the general community.

In the absence of Col. Sykes, Mr. Heywood read his paper on the Lunatic Asylums of Bengal. They are chiefly remarkable for the rapidity with which they have improved since their first establishment, and the very trifling cost at which they are supported.—*Meeting of the British Association for the Advancement of Science.*

Dr. Home.—Dr. James Home, late professor of Medicine in the Northern University, was at his death, on the 5th of December, eighty-four years of age. It is only two years since he relinquished his chair. He was a professor for forty years, having succeeded his father, Francis, in 1779. On *Materia Medica*, Dr. Home was very popular in the University, particularly during the last years of his holding that professorship. This increase of popularity was chiefly owing to his having adopted the new views of Sir Humphrey Davy on the subject of chlorine. For while Murray, of the Edinburgh School, keenly opposed those views, seeking to overthrow

them by experiment, and Hope hesitated to adopt them, Home remodelled this part of his lectures, and so closely followed Davy's nomenclature and explanations, that the student did not learn from him that there ever had been any other. In the chair of Medicine, no teacher took greater pains with his lectures; yet their success latterly was far from proportioned to the pains bestowed upon them. In the clinical wards, he had the reputation of being attached perhaps a little too much to the lancet.—*Northern Jour. of Med.*

Hooping-Cough, its Treatment and Effects.—Mr. Roberts, in reference to the discussion of the last meeting of the Medical Society of London, explained that he considered dilated bronchial tubes were never found in young persons, but were not uncommon in those who are the subject of chronic bronchitis, or the old catarrh or winter cough, as it was called. Assuming this to be correct, it was reasonable to suppose that pectoriloquy occurring in young persons was the result of a cavity.

Dr. G. Bird differed in opinion with the last speaker, for he had found that the bronchial tubes were not uncommonly dilated, even in children, and particularly in those who had suffered from protracted hooping-cough. He had found this dilatation at all ages, from the period of dentition to puberty.

Dr. Wiltshire agreed in the main with Dr. Bird, and expressed his belief that the mass of cases of mild consumption, in which the physical and other signs and symptoms of phthisis were present, were, in fact, cases of dilated bronchial tubes. He had seen the most severe forms of chronic bronchitis between the ages of twenty-five and thirty.

Mr. Crisp had examined several children who had died of hooping-cough under the age of three years, and had never found dilated bronchial tubes.

Belladonna in Hooping-Cough.—Dr. Waller had of late tried belladonna in two cases of hooping-cough with the best results. He gave the extract in a twelfth of a grain dose, three times a day, to a child four years of age. In these cases there was simply the spasmodic cough, and no indication whatever of the presence of inflammation. Prussic acid and conium had failed in affording any permanent or marked relief.

Mr. Crisp had in the majority of cases found the antiphlogis-

tic plan of treatment in the early stages of hooping-cough to be the best treatment. In robust and healthy children the application of leeches, followed by blisters, and the use of tartar emetic, had usually been attended by the best results. He viewed the disease generally as inflammatory, or at all events congestive. Contrasting the antiphlogistic treatment with that which he had formerly pursued, he had every reason to be satisfied with the change that he had made. With respect to the use of prussic acid, he had usually found it of service only for a day or two.

Dr. Wiltshire, at the Infirmary for Children, had treated simple uncomplicated hooping-cough with two or three emetics of ipecacuanha, one every morning or second morning, followed for two or three days with nauseating doses of antimony, and had found this plan of great service in the early stages of hooping-cough. Hemlock and ipecacuanha were of benefit afterwards in relieving the cough. With respect to belladonna, he was fearful of its employment, for notwithstanding the evidence in its favor, adduced by certain German practitioners, there were others who had found that this medicine has a tendency to increase vascular action in the brain, and to the production of hydrocephalus.

Dr. Chowne, in the treatment of hooping-cough, laid particular stress on the necessity of keeping the patient in a warm temperature, and using every means to prevent his catching cold. Nauseating doses of ipecacuanha were frequently of benefit. With reference to the production of emphysema by hooping-cough he did not believe it possible.

Dr. Clutterbuck looked upon hooping-cough as a specific disease, produced by a specific cause—it was an inflammation of the bronchial membrane of a specific character, but apt to induce inflammation of other organs, such as of the lungs or of the head, and it was these complications that constituted the dangerous characters of hooping-cough. He had little confidence in any remedy for this affection. The disease should be narrowly watched, with the view of prevention, rather than of active treatment; if mild, nothing was necessary to be done, it would terminate spontaneously; if threatened the complications he had alluded to decided antipholgistic means were demanded.

Dr. Golding Bird regarded the hoping-cough, in the first stage, as invariably inflammation of the lining membrane of the bronchial tubes, larynx, and trachea, of a specific character, and implicating, in some manner, the par vagum. This inflammation lasted a definite period, which was influenced by

constitution, and other causes. In the second stage of the affection, the disease was *nervous*, the specific irritation of the par vagum being kept up, altogether independent of inflammation; or, if this were present, it was accidental; the hooping was afterwards protracted, by the influence of habit. In the first stage, remedies for bronchitis were advisable—such as emetics, diaphoretics, the warm bath, and a warm temperature. When the inflammotory stage was passed, the object of the practitioner was to subdue irritation in the par vagum, and this was effected by the agency of narcotics—such as conium, in conjunction with the carbonate of potash, hemlock, and hydrocyanic acid. Embrocations to the spine and chest were also useful. When bronchorrhœa became troublesome, small doses of alum, with sedatives, were employed with advantage. When the bronchorrhœa had ceased, tonics were indicated,—the kind of tonic to be determined by the constitution of the patient. Emphysema did not occur as the consequence of hooping-cough.

The President had found, in some cases where belladonna was given, that the poisonous, rather than the curative effects of that remedy developed themselves, even though the doses administered were remarkably small. With reference to the irritation of the par vagum in hooping-cough, he related a case in which this nerve had become exposed, from the formation of an abscess, or other cause; and it was remarkable, that when the nerve was in contact with the air, a spasmodic resembling hooping-cough was produced: when the nerve was covered over by a cicatrix, the hooping-cough ceased.

Prognosis of Chancre with reference to the probabilities of Secondary Symptoms.—By M. Ricord of Paris—In the report of M. Ricord's lectures, it is stated as the result of his extensive experience in the Venereal Hospital, that he has arrived at the following conclusions relative to the chances of secondary symptoms after a primary sore.

1. Primary ulcer is the indispensable precedent of secondary syphilis; without chancre there can be no general infection, except in the rare case of hereditary disease.

2. Simple non-indurated chancre and gangrenous chancre are very seldom, and only in exceptional cases, followed by secondary syphilis.

3. Indurated chancre always gives rise to constitutional infection.

4. The seat of chancre does not in the least degree influence the production of secondary symptoms. Provided the chancre be indurated, secondary disorder is as common and as constant after sores of the mouth, hand, nose, or foot, as after chancres of the penis.

5. The size of a chancre, the number of sores a person is affected with, do not increase his chances of general infection, always provided none be indurated.

6. If the primary sore be destroyed during the six first days of its existence, no secondary symptoms will follow.

7. If six months elapse after the cure of a chancre (no mercury having been exhibited,) without the appearance of secondary eruptions, all fear of constitutional symptoms may be laid aside.—*Ibid, from the Prov. Med. Jour.*

The Engrafting of Nerves.—M. Flourens, in reference to some experiments made by M. Tavignot, proving the possibility of engrafting nerves one on the other, reminded the Academy that he had published, some years since, similar experiments, with like results. He had seen the interlaced reunion of several nerves; for instance, the superior nerves with the inferior of the brachial flexus, and even the cervical nerves with the pneumogastric. In all these cases there was complete reunion, and in some, a complete return of function. (*See* "Memoirs of the Academy," vol. xiii. p. 14, and his Experimental Researches into the Functions of the Nervous System," &c., p. 272, *et seq.*—*London Lancet,*

Exemption of the Cherokee Indians and Africans from Insanity.—Dr. Lillybridge, of Virginia, who was employed by the Government as the medical officer to superintend the removal of the Cherokee Indians, in 1827-28 and 9, and saw more than twenty thousand Indians, and inquired much about their diseases, informs us he never saw or heard of a case of insanity among them.

Dr. Butler, who has been a devoted missionary and physician among the Cherokees for about a quarter of a century, informs us, in a recent letter, that he has yet seen no case of decided insanity among them, though he has occasionally seen them delirious when sick of other diseases; and adds, that an intelligent chief, a man now 80 years old, told him

that "he had never known a case of insanity among his people, such as he had seen in the Hospital in Philadelphia."

Insanity is rare, we believe, among the Africans. Cinquez, and other of the *Amistad* Negroes, when in this country a few years since, visited the Retreat for the Insane at Hartford, Ct,, and saw many of the patients there. They informed the writer of this article, that insanity was very rare in their native country. Most of them had never seen an instance. Cinquez stated however that he had seen one case.—*American Journal of Insanity,*

On the Incubation of Insanity.—Dr. Clutterbuck, at a late meeting of the Medical Society of London, regarded insanity as not a disease *per se*, but merely a symptom of disordered function of the brain. If we admitted—and, he thought, it could not be reasonably doubted—that the brain was the organ through which the mind was manifested, it followed that every disordered condition of the mind was dependent on some disordered condition of the brain, not always, it was true, obvious or appreciable, but still was clear that the brain was not in a sound state of health. Not always to the extent of disorganization, for it was known that insanity often left the patient for a time, and then recurred, from causes not very obvious. The brain was often found diseased in cases of insanity, but we wanted proof that those changes were always the cause of insanity. Authors of experience, however, had asserted that they had always found the brain diseased in cases of insanity; Sutherland and Haslam were of this number; and Mr. Lawrence, out of seventy-two cases, had found the brain diseased in all, a structural change existing in each case. These facts did not prove that the structural disease was the cause of the symptoms, but it showed that in insanity the brain was not sound. That these conditions were not the proximate cause of the insane phenomena, however, was proved, for they existed independent of insanity. We found opacity of the membranes, increased vascularity, bloody points, induration, softening, and serous effusions of the brain, in cases in which insanity did not exist. Changes, however, might exist beyond what we were at present enabled to discover. What, then, caused this state of the brain? He believed that it was always the result of inflammation which had existed at some

period or other. He thought this because inflammation was the great disorganizing process; and if disorganized, therefore, the brain must, at one time, have been inflamed. The disorganization was the result, in some way, of inflammation. We might often trace insanity in its early stages to the influence of extreme mental emotion, the effects of alcohol, or of local injuries, the insanity subsiding on the subsidence of these causes, so that we had cause and effect at once before us. He complained that the term incubation was not expressive of the manner in which insanity progressed in its early stages. Confirmed insanity was incurable, as the brain had become permanently affected. The time for treatment was in the early stage; subdue the inflammation then, and you subdue the symptom, and the brain regains its natural condition.—*Lancet.*

Jewish Physicians in Hamburgh.—In consideration of the active and generous conduct of the Jews of Hamburgh, and especially of the great banker, Solomon Heine, on occasion of the fire in that city in 1842, their condition has been ameliorated. Before, the laws weighed heavily upon them, as every where else in Germany. For a long while, the Jews of Hamburgh have been rigidly restricted to commerce and to the exercise of the *medical profession.* Now, the Council of Ancients propose to open to them all trades and professions.

What a low estimate, it would appear, has been made of medicine, by the enlightened people of Hamburgh! If the oppressed Israelites studied any science, it must be medicine—as much as to say, it is only a mean occupation, and very well accords with their character and political circumstances. Associated with degradation as medicine is, when practised by a Jew, some of the brightest luminaries of the last century were of that despised, persecuted race. Those who have read Dr. Dunbar's translations of the early efforts and claims of the Jewish physicians of Europe, know very well our indebtedness to them, notwithstanding the low estimate in which they are held by the authorities of Hamburgh.

Boston Med. and Surg. Jour.

Enlargement of the Breasts in a Male: atrophy of the Genital Organs.—A man, aged about 55, originally a quarryman, at Rochester, but afterwards one of the British Legion in Spain, was presented to the Society, having a remarkable developmnt of the breasts. He stated that he had been very healthy, had three children, the eldest 25, the youngest would have been between 8 and 9 years of age;that in an engagement in Spain, he tried to jump over a trench, but, being laden with his knapsack, failed, and fell with his chest against the opposite margin. He received a blow on the lower part of the spine, and falling some depth, received a violent blow on the occiput, which rendered him insensible. He was under the care of Mr. R. Alcock for some time. Since that period the mammæ have gradually increased in size, his voice has diminished in power, his beard has diminished, the right testicle has diminished to a very small size, and the left is still diminishing, and he has had no sexual desire since. He is partially paralysed on the right side, and moves about very much bent. Skin fair and soft; beard very thin and soft; voice weak; mammæ pendulous; nipples rather prominent; the glands very large and distinct; penis small and shrivelled; right testic having the feeling of condensed membrane; left of a moderate size, but not firm, and tender on pressure; the pelvic region round, more like that of a woman, not presenting the angular appearance of the male. He denies having ever had venereal disease, or taken any quantity of mercury.

Cases were mentioned of enlargement of the breasts in the male related in the "Philosophical Transactions," vol. 41; and in Captain Franklin's "Journey to the Polar Regions;" and of emasculation consequent upon blows or wounds of the occiput, related by Larrey, in his "Clinique Chirurgicale; and by Hennen in his "Military Surgery." There was no appearance of abscess iu the mammæ.—*Prov. Med. and Surg. Jour.*

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LONGEVITY OF MEDICAL MEN.

The following note was sent to us by Dr. Boling to accompany his essay on the "Health of the Clergy," but reached us too late for our last number. Its humor will amuse, and its facts are worth preserving. We insert it in this place, and are sure that our readers will thank us for the opportunity of enjoying a laugh. Y.

"As an appendix to the catalogue of female writers of eminence who lived to an advanced age, I give below a short list of distinguished members of the medical profession, arranged in the order in which the names occurred to my mind. They are the only ones for whose ages I have examined. They were all highly distinguished, and although the opinions and doctrines advocated by some of them, may have been incorrect, and may have tended but little to the ultimate advancement of the science, still the genius of the authors gave to their opinions for a time a wide spread popularity. It may be maintained that it was not so much to superior abilities, as to the lengthened term of their lives that we are indebted for their labors. But to this my answer is that, in many instances their

principal works, the foundation upon which the reputations of the authors were built, were written before the attainment of old age—in some instances, in the earlier years of manhood.

	Years.		Years.
Hippocrates, from	85 to 109	Haller,	69
Galen,	70	Harvey,	80
Boerhaave,	78	Sir C. Bell,	67
Cullen,	78	Sir A. Cooper,	73
Sydenham,	65	Abernethy,	66
Brown, (intemperate)	53	Malpighi,	67
Rush,	68	Ruysch,	93
Physick,	70	Morgagni,	89
Broussais,	66	Larrey,	75
Hunter, (John)	65	Darwin,	71

"Shall I add to this list the names of Cervantes and Hahnemann? In regard to the former there is perhaps no good reason for classing him with medical authors, unless we are agreed to take the authority of the great Sydenham as conclusive on this point, who, as is known, when consulted by Sir Richard Blackmore as to what books he should study to prepare him for the medical profession, advised him to "read Don Quixote." The formula for the "precious balsam," prepared by the Knight of the rueful countenance, which produced such wonderful effects on his Squire, gives him further claims to a rank in our profession. This is the only thing in his immortal work that I can at this moment call to mind which can be considered as in any way pertaining to practical medicine. Perhaps it would be more correct to class both him and Hahnemann with the satirists. As Don Quixote was written in ridicule of the extraordinary and absurd ideas prevalent in regard to Chivalry, so in all probability was it the original intention of the sly old German, that his "Organon" should be received as a burlesque upon the different medical doctrines and theories which from time to time had replaced one another. "Many wild and ridiculous theories of medicine," he probably said to himself, "have prevailed, and have been the cause of much sarcasm upon the profession. My satire upon these false systems shall be the severest of all. I will do for medicine what Cervantes has done for chivalry"—and lo, the "Organon" appeared! Had it been received, as must have been the original ob-

ject of the author, the pungent wit expended upon the profession by Le Sage, Smollet, Moliere, and others, sparkling though it was, would have been completely dimmed. The jest of the author was taken as earnest, however, and though his wit was wasted, his pockets were filled. This was probably some consolation for his disappointment, and may have rendered the laugh in his sleeve more merry, till in the years of second childhood, he himself began to believe—received, in other words, that degree of enlightenment which had long since been attained by his proselytes. If the first object for which the work was intended was defeated, it probably advanced as well the authors interest, and served to develope a degree of gullibility in mankind previously unsuspected."

ASAFŒTIDA A PREVENTIVE OF MEASLES.

So Dr. R. B. Harper, of Bloomington, Tennessee, thinks he has discovered, and the facts upon which rests his belief we give below. The first question that will arise is, do the cases cited make out the point—is it true? That is a very essential question which must first be settled in all such cases. The inquiry would naturally afterwards come up, what is the *modus operandi* of the article? Is it homœopathic? Does asafœtida cause measles in the healthy subject? If not, one of two things must be true;—either that Hahnemann missed it, in this instance, or else asafœtida is not a preventive of measles. We shall not discuss any of these subordinate questions until the primary one is put to rest, and in order that other observers may turn their eyes towards the matter, we publish Dr. Harper's cases as they were lately communicated to us. Y.

"In the fall of 1842, Rubeola prevailed in this region of country in a form unusually aggravated. Reasons existed with me why I should be peculiarly anxious to keep the disease out of my family, none of whom had ever had measles, and as asafœtida had been mentioned as possessed of prophylactic virtues, I resolved on giving that article a trial. Accordingly I made a saturated tincture of it, of which I took a table-spoonful three times a day, at the same time carrying a lump of asafœtida in my pocket, and swallowing small pieces of it occasionally. I was particular to take it in some

of these forms just before visiting a case of measles. My family also made free use of the remedy. Among others, I attended the following cases during which time I was exposed to the disease:

"1. I was called, October 11th, to see Mrs. D. whom I found covered with the eruption of measles, and suffering from high fever, nausea and vomiting. In a minute examination which I made of all the features of the case I was fully exposed to the infection, and having up to this time been quite susceptible to contagious affections, I supposed that I had the best chances to take measles from my patient. But nothing of the sort occurred.

"2. October 16th, I was called to visit the child of Mr. J. M. with measles; I remained in the house during the night following, and examined a case of measles in a negro, in addition to the case of the child.

"3. Oct. 20th, I visited Mrs. W. with measles, and found her also in labor. The eruption was fully established, and was attended with high febrile excitement, but notwithstanding these unpleasant circumstances, the labor progressed favorably, and in a short time she was delivered of a well grown child, and healthy in every respect, except that it was covered with measles. I was necessarily much about the patient during her labor, but nevertheless escaped her disease, and thus passed through the epidemic without contracting it. The mother and child in this case both did well.

"I might speculate on these facts, but will leave that task to others. If my experience of the powers of asafœtida in this respect should be confirmed, the discovery will be valuable. The point, however, requires additional investigation. In medicine, everything depends upon experience. Accident has placed in our hands many of our most precious remedies, which, probably, when first proposed, commanded but slight attention, and awakened, if not violent opposition, or merciless ridicule, at best only feeble expectations. But bark, mercury, iodine, and the vaccine virus are agents the potency of which in their appropriate maladies, no one now questions, although no one professes to be able to explain their mode of curing or preventing disease."

A QUESTION OF LEGITIMACY.

Our friend, Professor Cobb, has lately been consulted respecting a case involving a question of paternity, which came up not long since in one of the courts of a Southern State. The facts stated are as follows: A white woman, the wife of a planter of wealth and respectable connexions, gave birth to a male child of so dark a complexion that unpleasant suspicions were awakened among her acquaintances. Her husband died subsequent to the birth of the child, and after remaining a widow four or five years she again married. A doctor, it seems, in an evil hour, charged her with incontinence, alleging that "she had given birth to a mulatto child." Upon this an action for slander has been brought, and is still pending, the jury having failed, on the first trial, to agree on a verdict. Nine doctors appeared as witnesses, who expressed opinions widely variant touching the merits of the case.

It was proved that the first husband, the alleged father of the boy, was a man of fair complexion, being of German extraction, but that his mother and two of his uncles were dark like the child, and that his family in Germany were descended from the Gipsies. It was further stated in the trial, that during the pregnancy of the mother with this child she was repeatedly frightened by reports of "negro insurrections."

The appearance of the boy is described as remarkable. His surface presents different shades of color, the chest and axilla being nearly white, while the abdomen is dark, the change occurring abruptly and being marked by a well defined line. The glans penis "is quite blue," while the other parts of the genital organs are of the complexion of the general surface. The boy has been growing gradually whiter since birth; "his hair is nearly straight—a little curled, but not kinked;" his feet and ankles present nothing of the negro peculiarity; his whole appearance might suggest the thought that he was the "product of a white woman and a mulatto man." Such is the description of the boy's physiognomy.

It was proved by the defendant that the character of the plaintiff had not been above suspicion, and that criminal connexion with her carriage-driver had been possible, if not probable.

Some of the questions upon which the medical witnesses differ are thus put by Professor Cobb's correspondent:

"Is not a mulatto from a white woman darker than one from a black woman?

Are there any anatomical or physiological signs by which negro blood might with certainty be detected?

Is it not usual for mulattoes to grow darker instead of whiter?

Would you place any reliance upon the color of the glans penis?

Do you think it possible that a *nævus materni* could cover nearly the whole body?

Do you think it possible for color to show itself in the third and fourth generation?

Do you know of any mode of bleaching by which the skin might be rendered white?"

The narrator is one of the nine medical witnesses in this suit, and is evidently very much perplexed. He says, "it has been my misfortune since I commenced the practice of physic to be called upon to give evidence in many cases of medical jurisprudence, but never before in one so difficult as this."

The gallantry of our distinguished colleague, no doubt, will tempt him to lean to the side of the lady and the legitimacy of her offspring, and the following facts in the case will support him in that opinion: namely, that the boy has been growing whiter since his infancy; that he is wanting in the characteristics of the negro race about the heel and ankle; that he is descended of the Gipsies in whom the dark complexion is a hereditary quality; and that some of his ancestors were as black as himself. Still it must be admitted that these proofs are not conclusive of the purity of blood, and the question is one which it may be impossible to place beyond the reach of controversy. Nature in her operations in this obscure walk seems not to be governed by very settled laws. Thus we are told of an English woman married to a black man, of whom the offspring was quite black; and of a similar case in which the child resembled the mother in fairness of features, the whole skin being white, "except some spots on the thigh which were as black as the father." White, in his work on the Gradation of Man, mentions a more remarkable case—that of a negress who had twins by an Englishman, one being perfectly black, with short, woolly, curled hair, the other white with hair resembling that of a European. Beck, in his Medical

Jurisprudence, has more cases going to show the difficulty of establishing any universal rule on the subject. Parental likeness in the estimation of Lord Mansfield is one of the strongest arguments in favor of legitimacy. In a case which came before him involving this question he said, "I have always considered likeness as an argument of a child being the son of a parent, and the rather as the distinction between individuals in the human species is more discernible than between other animals. A man may survey ten thousand people before he sees two faces exactly alike, and in an army of ten thousand men every man may be known from another. If there should be a likeness of feature, there may be a difference in the voice, gesture or other characters; whereas a family likeness runs generally through all of these; for in everything there is a resemblance as of feature, voice, attitude and action." This test, we should suppose, might avail in the case under consideration.

But Lawrence in his Lectures cites many facts going to show that the above law of transmitted likeness is not without exceptions. He remarks: "Children do not always resemble their parents; and hence we have occasionally persons produced in each race with characters approaching those of the other races. Among the white races of Europe scattered instances of individuals with skins nearly as dark as those of the Mongols or South-Sea Islanders are not unfrequent. I lately saw a girl," he continues, "whose dark-olive skin and jet-black hair, very much like those of a Chinese, joined to English features, made me suppose that there was some mixture of blood: it turned out, however, that her parents were both English: the mother dark, but not of so deep a tint as the daughter, and the father fair."

Our memory, happily, furnishes us with but one solitary case in which children were born of a white woman by a black man, and in this the offspring were rather bright mulattoes, partaking in the usual degree of the characters of the two races. Such instances, we are convinced, are of rare occurrence; and we hope that the lady involved in the vexatious suit to which we referred at the beginning of this article will be able to satisfy the jury, and society, that her unlucky boy inherits his dark skin from ancestors at least as respectable as the Gipsies. Y.

BOOKS RECEIVED.

In future numbers, it is our expectation to notice at length several of the following works, but at present we are restricted to the briefest remarks on their merits.

A Treatise on the Diseases and Special Hygiene of Females, by Colombat De L'Isere, translated from the French by Charles D. Meigs, M.D. &c. We have received a copy of this elaborate work from the publishers, Messers. Lea & Blanchard. We hope in our next number to be able to present our readers with a review of it from the pen of one of our most valued correspondents. We have called the work an elaborate one, and the fact that references in it are made to "more than a thousand authorities" justifies that character.

A Practical Treatise on the Diseases peculiar to women, illustrated by cases derived from Hospital and Private Practice. By Samuel Ashwell, M. D. &c, with notes by Paul B. Goddard, M. D. &c. To the same spirited publishers we are indebted for this work, treating of subjects almost identical with those of the volume just above. The publication of two such volumes at the same time, from authors of different countries, is proof of the interest awakened in the profession by the complaints of females. We indulge the hope that the diffusion of so much light as these works from the pens of distinguished practitioners ought to impart, will be beneficially felt by our brethren, and by this interesting class of their patients.

The Principles and Practice of Dental Surgery, by Chapin Harris, M. D. &c. This is a second edition of Dr. Harris' compendious work on Dental Surgery. We are glad to see that the practitioners of that branch of the art appreciate a work which reflects so much credit upon their profession. We received our copy from Messrs. Lindsay & Blakiston, the publishers at Philadelphia. We shall have more to say about it at an early day; but mean time we advise every dentist to avail himself of the earliest opportunity of supplying himself with a copy of it.

Principles and Illustrations of Pathological Anatomy, by J. Hope, M. D. &c., edited by L. M. Lawson, M. D. &c. We are indebted for a copy of this admirable work to the politeness of the editor. The publishers have given it to the readers on a very large type and fair paper, making a volume of imposing size and show. Y.

THE

WESTERN JOURNAL

OF

MEDICINE AND SURGERY.

JUNE, 1845.

ART. I.—*A List of the Plants growing spontaneously in the vicinity of Quincy, Florida.* By A. W. CHAPMAN, M.D.

RANUNCULACEÆ.

Clematis cylindrica, *Sims.*
reticulata, *Walt.*
viorna, *L.*
Virginiana, *L.*
Thalictrum anemonoides, *Mx.*
Cornuti, *L.*
Hepatica triloba, *Chaix.*
Isopyrum biternatum, *T.&G.*
Ranunculus acris, *L.*
abortivus, *L.*
parviflorus, *L.*
palmatus, *Ell.*
Ranunculus repens, *L.*
recurvatus, *L.*
Aquilegia Canadensis, *L.*
Delphinium azureum, *Mx.*
Xanthoriza apiifolia, *L'Herit.*

PAPAVERACEÆ.

Sanguinaria Canadensis, *L.*
Argemone Mexicana, *L.*
b. albiflora, *D.C.*

MAGNOLIACEÆ.

Magnolia glauca, *L.*
grandiflora, *L.*
macrophylla, *Mx.*
Frazeri, *Walt.*
b. pyramidata, *Nut.*
Liriodendron Tulipifera, *L.*
Illicium Floridanum, *Ellis.*

ANONACEÆ.

Uvaria parviflora, *T.&G.*
obovata, *T.&G.*
triloba, *T.&G.*

MENISPERMACEÆ.

Cocculus Carolinus, *D. C.*
Menispermum Lyoni, *Pursh.*

BERBERIDACEÆ.

Podophyllum peltatum, *L.*
Croomia pauciflora, *Torr.*

CABOMBACEÆ.

Cabomba Caroliniana, *Gray.*
Brasenia peltata, *Pursh.*

NELUMBIACEÆ.

Nelumbium luteum, *Willd.*

NYMPHÆACEÆ.

Nymphæa odorata, *Ait.*
Nuphar advena, *Ait.*

SARRACENIACEÆ.

Sarracenia flava, *L.*
purpurea, *L.*
Drummondii, *Cr'm.*
Psittacina, *Mx.*
variolaris, *Mx.*

FUMARIACEÆ.

Corydalis aurea, *Willd.*
Fumaria officinalis, *L.*

CRUCIFERÆ.

Nasturtium limosum, *Nutt.*
natans, *D.C.*
v. brevistylum, *T.*
Cardamine rotundifolia, *Mx.*
hirsuta, *L.*
Ludoviciana, *Hook.*
Dentaria, laciniata, *Muhl.*
Sisymbrium canescens, *Nutt.*

Warea cuneifolia, *Nutt.*
amplexifolia, *Nutt.*
Senebiera pinnatifida, *D.C.*
Lepidium Virginicum, *L.*

POLYGALACEÆ.

Polygala sanguinea, *L.*
cruciata, *L.*
lutea, *L.*
nana, *D.C.*
Baldwinii, *Nutt.*
incarnata, *L.*
setacea, *Mx.*
Boykinii, *Nutt.*
Chapmanii, *T.&G.*
polygama, *Walt.*
grandiflora, *Walt.*
corymbosa, *Mx.*
attenuata, *Nutt.*
Hookeri, *T.&G.*

VIOLACEÆ.

Viola palmata, *L.*
cucullata, *Ait.*
villosa, *Walt.*
primulæfolia, *L.*
lanceolata, *L.*
Muhlenbergii, *Torr.*
v. multicaulis, *T.&G.*
hastata, *Mx.* ?

DROSERACEÆ.

Drosera brevifolia, *Pursh.*
rotundifolia, *L.*
filiformis, *Raf.*
Parnassia Caroliniana, *Mx.*

CISTACEÆ.

Helianthemum corymbosum, *M.*
Carolinianum, *M.*
Lechea major, *Mx.*
minor, *Lam.*

HYPERICACEÆ.

Ascyrum crux-andreæ, *L.*
pumilum, *Mx.*
stans, *Mx.*
v. obovatum, *Chap.*
microsepalum, *T&G*
Hypericum galioides, *Lam.*
fasciculatum, *Lam.*
maculatum, *Walt.*
myrtifolium, *Lam.*
ambiguum, *Ell.*
nudiflorum, *Mx.*
cistifolium, *Lam.*
pilosum, *Walt.*
angulosum, *Mx.*
mutilum, *L.*
Sarothra, *Mx.*
Elodea petiolata, *Pursh.*
Virginica, *Nutt.*

ILLECEBRACEÆ.

Anychia Baldwinii, *T.&G.*
Siphonychia Americana, *T&G*
Stipulicida setacea, *Mx.*
Spergula rubra, *T.&G.*

CARYOPHYLLACEÆ.

Mollugo verticillata, *L.*
Sagina decumbens, *T.&G.*
Arenaria squarrosa, *Mx.*
serpyllifolia, *L.*
Stellaria media, *Smith.*
lanuginosa, *T.&G.*
Cerastium vulgatum, *L.*
viscosum, *L.*
Silene Baldwinii, *Nutt.*
Antirrhina, *L.*

POTULACACEÆ.

Portulaca oleracea, *L.*

LINACEÆ.

Linum Virginianum, *L.*

GERANIACEÆ.

Geranium Carolinianum, *L.*

BALSAMINACEÆ.

Impatiens pallida, *Nutt.*

OXALIDACEÆ.

Oxalis violacea, *L.*
corniculata, *L.*
stricta, *L.*

XANTHOXYLACEÆ.

Xanthoxylum Carolinianum, *L.*
Ptelea trifoliata, *L.*

ANACARDIACEÆ.

Rhus glabra, *L.*
copallina, *L.*
venenata, *D.C.*
Toxicodendron, *L.*
aromatica, *Ait.*

TERNSTRÆMIACEÆ.

Gordonia Lasianthus, *L.*
Stuartia Malachodendron, *L.*

MALVACEÆ.

Malva papaver, *Cav.*
Modiola multifida, *Mœnch.*

Sida spinosa, *L.*
Elliottii, *T.&G.*
rhombifolia, *L.*
Hibiscus aculeatus, *Walt.*
incanus, *Wendl.*

TILIACEÆ.

Tilia pubescens, *Ait.*

VITACEÆ.

Vitis bipinnata, *T.&G.*
indivisa, *Willd.*
æstivalis, *Mx.*
cordifolia, *Mx.*
vulpina, *L.*
Ampelopsis quinquefolia, *Mx.*

ACERACEÆ.

Acer dasycarpum, *Ehrh.*
rubrum, *L.*
nigrum, *Mx.*
Negundo aceroides, *Mœnch.*

HYPPOCASTANACEÆ.

Æsculus Pavia, *L.*

CELASTRACEÆ.

Euonymus atropurpureus, *Jac.*
Americanus, *L.*

RHAMNACEÆ.

Berchemia volubilis, *D.C.*
Rhamnus Carolinianus, *Walt.*
Sageretia Michauxii, *Brogn.*
Ceanothus Americanus, *L.*
microphyllus, *Mx.*

LEGUMINOSÆ.

Vicia Caroliniana, *Walt.*
micrantha, *Nutt.*
acutifolia.
Phaseolus perennis, *Walt.*
sinuatus, *Nutt.*
diversifolius, *Pers.*
helvolus, *L.*
Erythina herbacea, *L.*
Apios tuberosa, *Mœnch.*
Wistaria frutescens, *D.C.*
Rhynchosia tomentosa, *T.&G.*
Pitcheria galactoides, *Nutt.*
Galactia glabella, *Mx.*
pilosa, *Nutt.*
mollis, *Mx.*
brachypoda, *T.&G.*
sessiliflora, *T.&G.*
Clitoria Mariana, *L.*
Centrosema Virginiana, *Benth.*
Amphicarpæa monoica, *T.&G.*

Sesbania macrocarpa, *Muhl.*
Glottidium Floridanum, *D.C.*
Tephrosia Virginiana, *Pers.*
spicata, *T.&G.*
hispidula, *Pursh.*
chrysophylla, *Pursh.*
Indigofera Caroliniana, *Walt.*
Psoralea canescens, *Mx.*
melilotoides, *Mx.*
b. *T.&G.*
Amorpha fruticosa, *L.*
Caroliniana, *Croom.*
Petalostemum carneum, *Mx.*
gracile, *Nutt.*
corymbosum, *Mx.*
Trifolium Carolinianum, *Mx.*
reflexum, *L.*
Astragalus obcordatus, *Ell.*
Phaca villosa, *Nutt.*
Zornia tetraphylla, *Mx.*
Stylosanthes elatior, *Swartz.*
Æschynomene viscidula, *Mx.*
Desmodium nudiflorum, *D.C.*
acuminatum, *D.C.*
canescens, *D.C.*
Dillenii, *Darl.*
cuspidatum, *T.&G.*
viridiflorum, *Beck.*
rhombifolium, *D.C.*
Marilandicum, *B't.*
ciliare, *D.C.*
rigidum, *D.C.*
strictum, *D.C.*
paniculatum, *D.C.*
rotundifolium, *D.C.*
lineatum, *D.C.*
Lespedeza procumbens, *Mx.*
Lespedeza repens, *T.&G.*
violacea, *Pers.*
hirta, *Ell.*
capitata, *Mx.*
Crotalaria ovalis, *Pursh.*
Purshii, *D.C.*
Lupinus perennis, *L.*
v. *T.&G.*
villosus, *Willd.*
Baptisia lanceolata, *Ell.*
megacarpa, *Chap.*
simplicifolia, *Croom.*
alba, *Br.*
leucantha, *T.&G.*
Lecontii, *T.&G.*
Circis Canadensis, *L.*
Cassia occidentalis, *L.*
obtusifolia *L.*
Marilandica, *L.*
Chamæcrista, *L.*
nictitans, *L.*
Gleditschia triacanthos, *L.*
monosperma, *Walt*
Schrankia angustata, *T.&G.*

ROSACEÆ.

Chrysobalanus oblongifolius, *M*
Prunus Americana, *Marsh.*
Chicasa, *Mx.*
Cerasus serotina, *D.C.*
Caroliniana, *Mx.*
Spiræa opulifolia, *L.*
Agrimonia Eupatoria, *L.*
parviflora, *Ait.*
Fragaria Virginiana, *Ehrh.*

Rubus villosus, *Ait.*
trivialis, *Mx.*
cuneifolius, *Pursh.*
Rosa setigera, *Mx.*
lucida, *Ehrh.*
lævigata, *Mx.*
Cratægus coccinea, v. *L.*
apiifolia, *Mx.*
spathulata, *Mx.*
æstivalis, *T. & G.*
parvifolia, *Ait.*
Pyrus angustifolia, *Ait.*
arbutifolia, *L.*
Amelanchier Canadensis, *T. & G.*

CALYCANTHACEÆ.

Calycanthus Floridus, *L.*

MELASTOMACEÆ.

Rhexia Mariana, *L.*
lanceolata, *Walt.*
stricta, *Pursh.*
glabella, *Mx.*
ciliosa, *Walt.*
lutea, *Walt.*

LYTHRACEÆ.

Ammannia humilis, *Mx.*
Lythrum alatum, *Pursh.*
Decodon verticillatum, *Ell.*

ONAGRACEÆ.

Œnothera linearis, *Mx.*
biennis, *L.*
sinuata, *L.*
Gaura filipes, *Spach.*
Jussiæa decurrens, *D.C.*
leptocarpa, *Nutt.*
Ludwigia alternifolia, *L.*
hirtella, *Raf.*
virgata, *Mx.*
linearis, *Walt.*
linifolia, *Poir.*
cylindrica, *Ell.*
pilosa, *Walt.*
alata, *Ell.*
sphærocarpa, *Ell.*
microcarpa, *Mx.*
capitata, *Mx.*
palustris, *Ell.*
natans, *Ell.*
spathulata, *T. & G.*
acuata, *Walt.*

HALORAGEÆ.

Proserpinaca palustris, *L.*
pectinacea, *Lam.*
Myriophyllum verticillatum, *L.*
heterophyllum, *Mx.*
scabratum, *Mx.*

TURNERACEÆ.

Turnera cistoides, *L.*

PASSIFLORACEÆ.

Passiflora lutea, *L.*
incarnata, *L.*

CUCURBITACEÆ.

Melothria pendula, *L.*
Sicyos angulatus, *L.*

CACTACEÆ.

Opuntia vulgaris, *Mill.*

CRASSULACEÆ.

Penthorum sedoides, *L.*

SAXIFRAGACEÆ.

Hydrangia quercifolia, *Bartr.*
arborescens, *L.*
Decumaria barbara, *L.*
Philadelphus grandiflorus, *Willd.*

HAMAMELACEÆ.

Hamamelis Virginiana, *L.*

UMBELLIFERÆ.

Hydrocotyle interrupta, *Muhl.*
umbellata, *L.*
repanda, *Pers.*
ranunculoides, *L.*
Sanicula Marilandica, *L.*
Eryngium aquaticum, *L.*
virgatum, *Lam.*
Virginianum, *L.*
Baldwinii, *Spreng.*
Discopleura capillacea, *D.C.*
Leptocaulis divaricatus, *D.C.*
Cicuta maculata, *L.*
Sium lineare, *Mx.*
Neurophyllum longifolium, *T.&G.*
Thaspium cordatum, *T.&G.*
barbinode, *Nutt.*
Archangelica hirsuta, *T.&G.*
dentata, *Chap.*
Piedmannia teretifolia, *D.C.*
Archemora rigida, *D.C.*
Daucus pusillus, *Mx.*

ARALIACEÆ.

Aralia spinosa, *L.*

CORNACEÆ.

Cornus stricta, *Lam.*
asperifolia, *Mx.*
sericea, *L.*
florida, *L.*

LORANTHACEÆ.

Viscum flavescens, *Pursh.*

CAPRIFOLIACEÆ.

Lonicera sempervirens, *Ait.*
Sambucus Canadensis, *L.*
Viburnum nudum, *L.*
pruniſolium *L.*
obovatum, *Walt.*
dentatum, *L.*
b. *T. & G.*
aceriſolium, *L.*

RUBIACEÆ.

Galium hispidulum, *Mx.*
uniflorum, *Mx.*
trifidum, *L.*
pilosum, *Ait.*
circæzans, *Mx.*
Spermacoce glabra, *Mx.*
Chapmanii, *T. & G.*
Diodia Virginiana, *L.*
teres, *Walt.*
Cephalanthus occidentalis, *L.*
Mitchella repens, *L.*
Pinckneya pubens, *Mx.*
Hedyotis rotundiſolia, *T. & G.*
purpurea, *T. & G.*
stenophylla, *T. & G.*
Boscii, *D. C.*
glomerata, *Ell.*
Mitreola petiolata, *T. & G.*
sessiliſolia, *T. & G.*
Polypremum procumbens, *L.*

VALERIANACEÆ.

Fedia radiata, *Mx.*

COMPOSITÆ.

Vernonia augustiſolia, *Mx.*
fasciculata, *Mx.*
ovaliſolia, *T. & G.*
Elephantopus tomentosus, *L.*
Carolinianus, *Willd.*
Sclerolepis verticillata, *Cass.*
Carphephorus pseudo-Liatris, *Cass.*
Liatris elegans, *Willd.*
squarrosa, *Willd.*
tenuiſolia, *Nutt.*
gracilis, *Pursh.*
graminiſolia, *Willd.*
spicata, *Willd.*
scariosa, *Willd.*
odoratissima, *Willd.*
paniculata, *Willd.*
Chapmanii, *T. & G.*
Kuhnia Eupatorioides, *L.*
Brickellia cordiſolia, *Ell.*
Eupatorium purpureum, *L.*
fæniculaceum, *Willd.*
coronopiſolium, *Wil.*
pinnatifidum, *Ell.*
hyssopiſolium, *L.*
leucolepis, *T. & G.*
parviflorum, *Ell.*
album, *L.*
teucriſolium, *Willd.*
rotundiſolium, *L.*
perfoliatum, *L.*
serotinum, *Mx.*
aromaticum, *L.*
incarnatum, *Walt.*
Mikania scandens, *Willd.*
Cenoclinum cælestinum, *D. C.*
Seriocarpus tortifoluis, *Nees.*
Aster concolor, *L.*

Aster adnatus, *Nutt.*
patens, *Ait.*
undulatus, *L.*
ericoides, *L.*
dumosus, *L.*
miser, *L.*
simplex, *Willd.*
Chapmanii, *T. & G.*
divaricatus, *Nutt.*
Eryngiifolius, *T. & G.*
Erigeron Canadense, *L.*
Philadelphicum, *L.*
strigosum, *L.*
vernum, *T. & G.*
Diplopappus linearifolius, *Hook.*
amygdalinus, *T. & G.*
obovatus, *T. & G.*
Boltonia diffusa, *Ell.*
Solidago discoidea, *T. & G.*
cæsia, *L.*
virgata, *Mx.*
puberula, *Nutt.*
petiolaris, *Ait.*
speciosa, *Nutt.*
sempervirens, *L.*
angustifolia, *Ell.*
patula, *Muhl.*
arguta, *Ait.*
gracillima, *T. & G.*
altissima, *L.*
amplexicaulis, *T. & G.*
brachyphylla, *Chap.*
pilosa, *Walt.*
odora, *Ait.*
tortifolia, *Ell.*
nemoralis, *Ait.*
Leavenworthii, *T. & G.*
Canadensis, *L.*
pauciflosculosa, *Mx.*
Solidago tenuifolia, *Pursh.*
Bigelowia nudata, *D. C.*
Heterotheca scabra, *D. C.*
Chrysopsis graminifolia, *Nutt.*
oligantha, *Chap.*
Mariana, *Nutt.*
trichophylla, *Nutt.*
hyssopifolia, *Nutt.*
gossypina, *Nutt.*
Baccharis halimifolia, *L.*
angustifolia, *Mx.*
Pluchea bifrons, *D. C.*
camphorata, *D. C.*
Pterocaulon pycnostachyum, *Ell.*
Borrichia frutescens, *D. C.*
Eclypta erecta, *L.*
Polymnia Uvedalia, *L.*
Chrysogonum Virginianum, *L.*
Silphium compositum, *Mx.*
Asteriscum, *L.*
Berlandiera tomentosa, *T. & G.*
Iva frutescens, *L.*
microcephala, *Nutt.*
Ambrosia trifida, *L.*
artemesiæfolia, *L.*
Xanthium strumarium, *L.*
Melanthera hastata, *Mx.*
Zinnia multiflora, *L.*
Heliopsis lævis, *Pers.*
Tetragonotheca helianthoides, *L.*
Echinacea atrorubens, *Nutt.*
Rudbeckia hirta, *L.*
fulgida, *Ait.*
triloba, *L.*
laciniata, *L.*
heterophylla, *T. & G.*
Lepachys pinnata, *T. & G.*
Helianthus augustifolius, *L.*
Radula, *T. & G.*

Helianthus heterophyllus, *Nutt.*
tomentosus, *Mx.*
strumosus, *L.*
divaricatus, *L.*
microcephalus, *T.&G.*
Helianthella tenuifolia *T.&G.*
Actinomeris squarrosa, *Nutt.*
nudicaulis, *Nutt.*
Coreopsis aurea, *Ait.*
tripteris, *L.*
senifolia, *Mx.*
auriculata, *L.*
lanceolata, *L.*
gladiata, *Walt.*
angustifolia, *Ait.*
integrifolia, *Poir,*
nudata, *Nutt.*
Bidens frondosa, *L.*
chrysanthemoides, *Mx.*
bipinnata, *L.*
Verbesina Virginica, *L.*
Gaillardia lanceolata, *Mx.*
Palafoxia integrifolia, *T.&G.*
Hymenopappus scabiosæus, *L'H.*
Helenium autumnale, *L.*
quadridentatum, *Ell.*
Leptopoda Helenium, *Nutt.*
puberula, *Macb.*
Baldwinia uniflora, *Nutt.*
Actinospermum angustifolium, *Ell.*
Marshallia angustifolia, *Pursh.*
lanceolata, *Pursh.*
Leucanthemum vulgare, *Lam.*
Artemesia caudata, *Mx.*
Gnaphalium polycephalum, *Mx.*
Antennaria plantaginifolia, *Hook.*
Cacalia diversifolia, *T.&G.*
ovata, *Walt.*
Senecio lobatus, *Pers.*
aureus, *L.*
Elliottii, *T.&G.*
tomentosus, *Mx.*
Arnica nudicaulis, *Ell.*
Cirsium Lecontii, *T.&G.*
repandum, *Mx.*
horridulum, *Mx.*
Chaptalia tomentosa, *Vent.*
Apogon humilis, *Ell.*
Krigia Virginica, *Willd.*
Cynthia Dandelion, *D.C.*
Hieracium Gonovii, *L.*
Lygodesmia aphylla, *D.C.*
Pyrrhopappus Carolinianus, *D.C.*
Lactuca graminifolia, *Mx.*
elongata, *Muhl.*
Mulgedium Floridanum, *D.C.*

LOBELIACEÆ.

Lobelia Cardinalis, *L.*
amæna, *Mx.*
glaudulosa, *Walt.*
crassiuscula, *Mx.*
paludosa, *Nutt.*
puberula, *Mx.*

CAMPANULACEÆ.

Campanula Americana, *L.*
amplexicaulis, *Mx.*

ERICACEÆ.

Andromeda axillaris, *Ait.*

Andromeda arborea, *L.*
frondosa, *Muhl.*
Mariana, *L.*
nitida, *Walt.*
paniculata, *Pursh.*
racemosa, *Mx.*
rigida, *Pursh.*
phyllicrifolia, *Hook.*
Epigæa repens, *L.*
Mylocarium ligustrinum, *Willd.*
Clethra tomentosa. *Lam.*
alnifolia, *L.*
Cyrilla racemiflora. *Walt.*
Kalmia hirsuta, *Walt.*
latifolia, *L.*
Rhododendron viscosum, *T.*
nudiflorum, *T.*
punctatum, *Ell.*
Vaccinium arboreum, *Marsh.*
corymbosum, *L.*
dumosum, *Curtis.*
hirtellum, *Ait.*
frondosum, *L.*
stamineum, *L.*
myrsinites, *Mx.*
myrtilloides, *Ell. Mx.*?
galezans, *Mx.*
Monotropa uniflora, *L.*
lanuginosa, *Mx.*

AQUIFOLIACEÆ.

Ilex opaca, *Ait.*
myrtifolia, *Walt.*
vomitoria? *Ait.*

EBENACEÆ.

Diospyros Virginiana, *L.*
Styrax grandifolium, *Ait.*
glabrum, *Ell.*
pulverulentum, *Mx.*
Symplocos tinctoria, *L'Herit.*

SAPOTACEÆ.

Bumelia lanuginosa, *Mx.*
reclinata, *Ph.*
tenax, *Willd.*

PRIMULACEÆ.

Samolus Valerandi, *L.*
ebracteatus, *Kunth.*
Lysimachia ciliata, *L.*
sp. nov.
Micranthemum orbiculatum, *Mx.*

PLANTAGINACEÆ.

Plantago pusilla, *Nutt.*
Virginica, *L.*

PLUMBAGINACEÆ.

Statice Coroliniana, *Walt.*

LENTIBULACEÆ.

Pinguicula elatior, *Mx.*

Pinguicula lutea, *Walt.*
pumila, *Mx.*
Utricularia inflata, *Walt.*
setacea, *Mx.*
bipartita, *Ell.*
personata, *Lecont.*
purpurea, *Walt.*

OROBANCHACEÆ.

Orobanche Americana, *L.*
uniflora, *L.*
Epiphegus Americanus, *Nutt.*

BIGNONIACEÆ.

Bignonia radicans, *L.*
capreolata, *L.*
Catalpa cordifolia, *Duham.*

ACANTHACEÆ.

Justicia ensiformis, *Walt.*
brachiata, *Pursh.*
sp. nov.
Ruellia strepens, *L.*
oblongifolia, *Mx.*
tubiflora, *Lecont.*
humistrata, *Mx.*
Elytraria virgata, *Mx.*

SCROPHULARIACEÆ.

Scrophularia Marilandica, *L.*
Antirrhinum Canadense, *L.*
Antirrhinum sp. nov.
Chelone glabra, *L.*, var.
Gerardia quercifolia, *Pursh.*
Pedicularia, *L.*
linifolia, *Nutt.*
purpurea, *L.*
tenuifolia, *Vahl.*
aphylla, *Nutt.*
fasciculata, *Ell.*
filifolia? *Nutt.*
setacea, *Nutt.*
stenopoda, sp. nov.
Gratiola pilosa, *Mx.*
acuminata, *Walt.*
sphærocarpa, *Ell.*
quadridentata, *Mx.*
Virginica, *L.*
Mimulus alatus, *Ait.*
ringens, *L.*
Pentstemon pubescens, *Ait.*
lævigatus, *Ait.*
Veronica peregrina, *L.*
Verbascum Thapsus, *L.*
Blattaria, *L.*
Buchnera Americana, *L.*
Siphonostegia, sp., *Benth.*
Herpestis amplexifolia, *Pursh.*
cuneifolia, *Pursh.*
Schwalbea Americana, *L.*
Lindernia attenuata, *Muhl.*
Seymeria tenuifolia, *Pursh.*
pectinata, *Pursh.*
Macranthera Lecontii, *Torr.*

VERBENACEÆ.

Verbena angustifolia, *Mx.*
Caroliniana, *L.*

Verbena urticifolia.
Aubletia.
Callicarpa Americana, *L.*
Phryma leptostachya, *L.*
Zapania nodiflora, *Pursh.*

LABIATÆ.

Hyptis radiata, *L.*
Lamium amplexicaule, *L.*
Lycopus Virginicus, *L.*
angustifolius, *Ell.*
Monarda punctata, *L.*
Physostegia variegata, *Pursh.*
Prunella vulgaris, *L.*
Pycnanthemum incanum, *Mx.*
hyssopifolium, *B.*
nudum, *Nutt.*
linifolium, *Pursh.*
Salvia azurea, *L.*
lyrata, *L.*
urticifolia, *L.*
Scutellaria integrifolia, *L.*
parvula, *Mx.*
pilosa, *Mx.*
ovalifolia, *Pers.?*
Stachys hispida, *Pursh.*
Teucrium Canadense, *L.*
Trichostema dichotoma, *L.*
Collinsonia anisata, *Mx.*
punctata, *Ell.*
Ceranthera linearifolia, *Ell.*
Micromeria Brownei, *Benth.*
Gardoquia Hookeri, *Benth.*
Keithia, sp., *Benth.*

BORAGINACEÆ.

Onosmodium hispidum, *Mx.*
Batschia Gmellini, *Mx.*
Cynoglossum Virginicum, *L.*
Myosotis palustris, *Roth.*
Lithospermum, sp. nov.
Heliotropium Indicum, *L.*

HYDROLEACEÆ.

Hydrolea quadrivalvis, *Walt.*

POLEMONIACEÆ.

Phlox aristata, *Mx.*
maculata, *L.*
pilosa, *L.*
divaricata, *L.*
subulata, *L.*

CONVOLVULACEÆ.

Convolvulus panduratus, *L.*
tenellus, *Lam.*
aquaticus, *Walt.*
repens, *L.*
sagittæfolius, *Mx.*
tamnifolius. *Mx.*
trichocarpus, *Mx.*
Dichondra Caroliniensis, *Mx.*
Evolvulus sericeus, *Mx.*
Cuscuta Americana, *L.*

SOLANACEÆ.

Solanum nigrum, *L.*
Carolinense, *L.*
Physalis lanceolata, *Mx.*
angulata, *Walt.*
Datura stramonium, *L.*
Lycium Carolinianum, *Walt.*
Atropa physaloides, *Willd.*

GENTIANACEÆ.

Gentiana Catesbæi, *Walt.*
ochroleuca, *Willd.*
angustifolia, *Mx.*
Centaurella verna, *Mx.*
paniculata, *Mx.*
Villarsia trachysperma, *Ell.*
Sabbatia chloroides, *Pursh.*
brachiata, *Ell.*
angularis, *Pursh.*
paniculata. *Pursh.*
gentianoides, *Ell.*
corymbosa, *Bald.*
calycosa, *Pursh.*
sp. nov.

SPIGELIACEÆ.

Spigelia Marilandica, *L.*
gentianoides, sp. nov.

APOCYNACEÆ.

Apocynum pubescens, *Br.*
Amsonia angustifolia, *Mx.*
Amsonia latifolia, *Mx.*
Gelsemium nitidum, *Mx.*
Echites difformis, *Walt.*

ASCLEPIADACEÆ.

Asclepias amplexicaulis, *Mx.*
cinerea, *Walt.*
obtusifolia, *Mx.*
paupercula, *Mx.*
tuberosa, *L.*
variegata, *L.*
verticillata, *L.*
angustifolia, *Ell.*
obovata, *Ell.*
parviflora, *L.*
connivens, *Bald.*
longifolia, *Mx.*
viridis, *Walt.*
viridiflora, *Pursh.*
linifolia, sp. nov.
Gonolobus macrophyllus, *Mx.*
hirsutus, *Mx.*
Lyonia maritima, *Ell.*
Podostigma pubescens, *Ell.*

OLEACEÆ.

Olea Americana, *L.*
Chionanthus Virginica, *L.*
Fraxinus platycarpa, *Mx.*

ARISTOLOCHIACEÆ.

Aristolochia serpentaria, *L.*
tomentosa, *Nutt.*

Asarum arifolium, *Mx.*

CHENOPODIACEÆ.

Chenopodium ambrosioides, *L.*
anthelminticum, *L.*
Salicornia ambigua, *Mx.*

AMARANTHACEÆ.

Amaranthus spinosus, *L.*
pumilus, *Ell.?*
hybridus, *Willd.*
albus, *Willd.*
Oplotheca Floridana, *Nutt.*

NYCTAGINACEÆ.

Boerhaavia erecta, *Wild.*

POLYGONACEÆ.

Polygonum Pennsylvanicum, *L.*
punctatum, *Ell.*
Virginianum, *L.*
Convolvulus, *L.*
hirsutum, *Mx.*
incarnatum, *Ell.*
setaceum, *Baldwin.*
gracile, *Nutt.*
sp. nov.
Eriogonum tomentosum, *Mx.*
Brunnichia cirrhosa, *Mx.*
Rumex crispus, *L.*
Rumex verticillatus, *L.*
acetosella, *L.*

PHYTOLACCACEÆ.

Phytolacca decandra, *L.*

LAURACEÆ.

Laurus Benzoin, *L.*
Carolinensis, *Catesb.*
geniculata, *Walt.*
melissæfolia, *Walt.*
Sassafras, *L.*

SANTALACEÆ.

Nyssa biflora, *Walt.*
capitata, *Walt.*
multiflora, *Walt.*
tomentosa, *Mx.*

ULMACEÆ.

Ulmus alata, *Mx.*
Americana, *L.*
fulva, *Mx.*
racemosa, *Thomas.*
Celtis pumila, *Pursh.*
Planera aquatica, *Walt.*

SAURURACEÆ.

Saururus cernuus, *L.*

EUPHORBIACEÆ.

Euphorbia corollata, *L.*
cordifolia, *Ell.*
hypericifolia, *L.*
Ipecacuanha, *L.*
Peplus? *L.*
polygonifolia, *L.*
sp. nov.
Crotonopsis linearis, *Mx.*
Croton ellipticum, *Ell.*
glandulosum.
argyranthemum, *Mx.*
maritimum, *Walt.*
Phyllanthus obovatus, *L.*
Pachysandra procumbens, *Mx.*
Styllingia ligustrina, *Mx.*
sylvatica, *L.*
Tragia linearifolia, *Ell.*
urens, *L.*
urticifolia, *Mx.*
Jatropa stimulosa, *Mx.*
Acalypha Virginica, *L.*

EMPETRACEÆ.

Ceratiola ericoides, *Mx.*

JUGLANDACEÆ.

Carya aquatica, *Nutt.*
tomentosa, *Nutt.*
amara, *Mx.*
porcina, *Nutt.*
Juglans nigra, *L.*

CUPULIFERÆ.

Castanea pumila, *Mx.*
nana, *Muhl.*
Corylus Americanus, *Walt.*
Fagus sylvatica, *L.*
Quercus alba, *L.*
aquatica, *Nutt.*
Catesbæi, *Mx.*
cinerea, *Mx.*
coccinea, *Wang.*
falcata, *Mx.*
lyrata, *Walt.*
nigra, *L.*
obtusiloba, *Mx.*
Phellos, *L.*
Prinos, *L.*
rubra, *L.*
virens, *Ait.*
Castanea, *Willd.*
pumila, *Walt.*
Michauxii, *Nutt.*
maritima, *Willd.*

MYRICACEÆ.

Myrica Torreyana, sp. nov.
cerifera, *L.*
Carolinensis, *Wang.*

BETULACEÆ.

Ostrya Virginica, *Willd.*
Betula nigra, *L.*
Alnus serrulata, *Willd.*
Carpinus Americana, *Mx.*

SALICACEÆ.

Salix nigra, *Ell. L?*
Muhlenbergiana, *Willd.*
Populus angulata, *Ait.*

BALSAMIFLUÆ.

Liquidambar styraciflua, *L.*

PLATANACEÆ.

Platanus occidentalis, *L.*

URTICACEÆ.

Morus rubra, *L.*
Urtica Canadensis, *L.*
pumila, *L.*
Bœhmeria cylindrica, *L.*
Parietaria Pennsylvanica, *Muhl.*

CONIFERÆ.

Pinus australis, *Mx.*
inops, *Ait.*
tæda, *L.*
variabilis, *Lamb.*
Cupressus thyoides, *L.*
Juniperus Virginiana, *L.*
Taxodium distichum, *Rich.*
Torreya taxifolia, *Arnot.*
Taxus Croomii, sp. nov.

PALMÆ.

Chamærops Palmetto, *L.*
serrulata, *Pursh.*
hystrix, *Swartz.*
Sabal pumila, *Walt.*

ARACEÆ.

Orontium aquaticum, *L.*
Arum dracontium, *L.*
triphyllum, *L.*
Virginicum, *L.*

TYPHACEÆ.

Typha latifolia, *L.*
Sparganium Americanum? *Nutt.*

NAIADACEÆ.

Potamogeton natans, *L.*
fluitans, *L.*
setaceum, *Pursh.*
Zostera marina, *L.*

ALISMACEÆ.

Sagittaria graminea, *Mx.*
lancifolia *L.*
natans, *L.*
sagittæfolia, *Walt.*
pusilla, *Nutt.*

HYDROCHARIDACEÆ.

Hydrocharis spongiosa, *Bosc.*
Vallisneria spiralis, *Torr.*

BURMANNIACEÆ.

Tripterella capitata, *Mx.*
cærulea, *Mx.*
Apteria setacea, *Nutt.*

ORCHIDACEÆ.

Goodyera pubescens, *Willd.*
Cranichis multiflora, *Nutt.*
Spiranthes cernua, *Rich.*
tortilis, *Rich.*
Triphora pendula, *Nutt.*
Pogonia divaricata, *Nutt.*
ophioglossoides, *L.*
verticillata, *Muhl.*
Calopogon pulchellum, *Nutt.*
Corallorhiza multiflora, *Nutt.*
odonthorhiza, *Nutt.*
Epidendrum conopseum, *Ait.*
Bletia aphylla, *Nutt.*
verucunda, *Swartz.*
Tipularia discolor, *Nutt.*
Microstylis ophioglossoides, *Nutt.*
Orchis Elliottii, *Beck.*
nivea, *Nutt.*
Habenaria herbiola, *Br.*
ciliaris, *Br.*
cristata, *Br.*
blephariglottis, *Hook.*
Michauxii, *Nutt.*
repens, *Nutt.*

BROMELIACEÆ.

Tillandsia usneoides, *Pers.*
Agave Virginica, *L.*

AMARYLLIDACEÆ.

Amaryllis Atamasco, *L.*
Pancratium Mexicanum, *L.*

HÆMODORACEÆ.

Lachnanthes tinctoria, *Ell.*

IRIDACEÆ.

Iris hexagona, *Walt.*
versicolor, *L.*
tripetala, *Walt.*
Sisyrhinchium anceps, *L.*

DIOSCOREACEÆ.

Dioscorea quarternata, *Walt.*

SMILACEÆ.

Smilax hastata, *Willd.*
herbacea, *L.*
lanceolata, *Walt.*
laurifolia, *Walt.*
pumila, *Walt.*
rotundifolia, *L.*
glauca, *Walt.*

Medeola Virginica, *L.*
Trillium sessile, *L.*
Convallaria multiflora.
Uvularia perfoliata, *L.*
sessilifolia, *L.*

LILIACEÆ.

Lilium Catesbæi, *Walt.*
Carolinianum, *Mx.*
Yucca filamentosa, *L.*
gloriosa, *L.*
Erythronium Americanum, *L.*
Allium striatum, *Pursh.*
mutabile, *Mx.*
Aletris farinosa, *L.*
aurea, *Walt.*

PONTEDERIACEÆ.

Pontederia cordata, *L.*
Syena fluviatilis.

MELANTHACEÆ.

Zigadenus glaberrimus, *Mx.*
Leimanthium Virginicum, *Mx.*
Veratrum angustifolium, *Pursh.*
floccosum, sp. nov.
Tofieldia pubens, *Dryand.*
Amianthium muscætoxicum, *G.*
angustifolium, *Gray.*
Helonias dioica, *Pursh.*

JUNCACEÆ.

Juncus biflorus, *Ell.*
repens, *Mx.*
echinatus, *Muhl.*
filiformis, *Ell. Mx?*
effusus, *L.*
acutus, *L.*
polycephalus, *Mx.*
tenuis, *Willd.*
dichotomus, *Ell.*
aristulatus, *Mx.*
erythrocarpus, sp. nov?
Luzula campestris, *D.C.*
Plea tenuifolia, *Mx.*

COMMELYNACEÆ.

Commelyna erecta, *Willd.*
Virginica, *L.*
communis.
Tradescantia Virginica, *L.*

XYRIDACEÆ.

Xyris fimbriata, *Ell.*
juncea, *Baldwin.*
flexuosa, *Ell.*
brevifolia, *Mx.*

ERIOCAULONACEÆ.

Eriocaulon floridulum, *Mx.*
villosum, *Walt.*
gnaphaloides, *Mx.*
decangulare, *Mx.*

CYPERACEÆ.

Dulichium spathaceum, *Pers.*
Kyllingia sesquiflora, *Torr.*
pumila.
Lipocarpha maculata, *Torr.*
Mariscus retroflexus, *Vahl.*
Trichelostylis mucronulata, *T.*
Cyperus Baldwiniana, *Torr.*
compressus, *L.*
flavescens, *L.*
Gatesii, *T.*
leptos, *Schultes.*
ovularis, *T.*
virens, *Mx.*
strigosus, *L.*
vegetus, *Willd.*
repens, *Ell.*
Nuttallii, *T.*
tetragonus, *Ell.*
speciosus, *Vahl.*
erythrorhizos.
Drummondii, *T.*
Eleocharis acicularis, *Br.*
capitata, *Br.*
melanocarpa, *T.*
microcarpa, *T.*
tricostata, *T.*
prolifera, *T.*
Robbinsii, *Oakes.?*
tuberculosa, *Mx.*
obtusa, *Schultes.*
equisetoides, *Ell.*
intermedia? *T.*
uncialis, sp. nov.
Scripus divaricatus, *Ell.*
Eriophorum, *L.*
Scripus lacustris, *L.*
triqueter, *L.*
Fuirena squarrosa, *Mx.*
scirpoidea, *Mx.*
Fimbristylis congesta, *T.*
spadicea, *Vahl.*
Baldwinii, *T.*
Isolepis Warei, *T.*
capillaris, *T.*
ciliatifolia, *T.*
coarctata, *T.*
Ceratoschœnus corniculatus, *G.*
Cephaloschœnus polystachys.
sp. nov.
Psilocarya rhynchosporoides, *T.*
Dichromena latifolia, *Bald.*
leucocephala.
Schœnus nigricans, *L.*
Cladium effusum, *T.*
Hypoporum gracile, *T.*
Baldwinii, *T.*
interruptum, *T.*
verticillatum.
Scleria oligantha, *Mx.*
triglomerata, *Mx.*
reticularis, *Mx.*
Caroliniana, *Willd.*
laxa, *T.*
pauciflora, *Muhl.*
Rhyncospora Baldwinii, *Gray.*
caduca, *Ell.*
cephalantha, *Gray*
ciliata, *Vahl.*
cymosa, *Nutt.*
Elliottii, *Gray.*
filifolia, *Gray.*
fascicularis, *Nutt.*
gracilenta, *Gray.*
megalocarpa, *G.*

Rhyncospora microcarpa, *Bald.*
miliacea, *Gray.*
multiflora, *Gray.*
oligantha, *Gray.*
plumosa, *Ell.*
paniculata, *Gray.*
rariflora, *Ell.*
distans, *Nutt.*
?pusilla, sp. nov.
?Grayana, sp. nov.
glomerata, *Vahl.*

Carex anceps, *Muhl.*
cephalophora, *Muhl.*
Cherokeensis, *Schw.*
dasycarpa, *Muhl.*
Elliottii, *Schw. & Tor.*
festucacea, *Schr.*
debilis, *Mx.*
Floridana, *Schw.*
foliculata, *L.*
glaucescens, *Ell.*
hirsuta, *Willd.*
multiflora, *Muhl.*
laxiflora? *Lam.*
digitalis, *Willd.*
polytrichoides, *Muhl.*
rosea.
stellulata, *Good.*
venusta? *Dew.*
tentaculata, *Muhl.*
lupulina, b. *Schw.*
Willdenovii, *Muhl.*
Baltzellii, sp. nov.

GRAMINEÆ.

Panicum Alabamense, *Nees.*
capillare, *L.*
Panicum angustifolium, *Ell.*
anceps, *Mx.*
Crus-galli, *L.*
debile, *Ell.*
dichotomum, *L.*
gibbum, *Ell.*
hians, *Ell.*
latifolium, *L.*
microcarpum, *Muhl.*
gymnocarpum, *Ell.*
multiflorum, *Ell.*
nitidum, *Lam.*
scabriusculum, *Ell.*
virgatum, *L.*
amarum, *Ell.*
Walteri, *Ell.*
geniculatum, *Muhl.*

Digitaria filiformis, *Ell.*
sanguinalis, *Scop.*

Setaria glauca, *P. de B.*

Paspalum Floridanum,
ciliatifolium, *Mx.*
distichum, *L.*
præcox, *Walt.*
purpurascens, *Ell.*

Ceresia fluitans, *Ell.*
sp. nov.

Aulaxanthus ciliatus, *Ell.*
rufus, *Ell.*

Orthopogon hirtellum, *Nutt.*

Cenchrus echinatus, *Willd.*

Tripsacum dactyloides, *L.*

Trisetum palustre.

Stipa avenacea, *L.*

Aristida lanosa, *Ell.*
spiciformis, *Ell.*
stricta, *Mx.*
purpurascens.

Festuca nutans, *Willd.*

Festuca tenella, *Ell.*
myurus.
Kœleria truncata, *Torr.*
Melica speciosa, *Muhl.*
Chloris petræa, *Mx.*
Monocera aromatica, *Ell.*
Poa ambigua, *Ell.*
annua, *L.*
autumnalis, *Muhl.*
capillaris, *L.*
Eragrostis, *L.*
hirsuta, *Mx.*
nitida, *Ell.*
nervata.
reptans, *Mx.*
pectinata, *Mx.*
refracta. *Muhl.*
conferta, *Ell.*
sesslerioides.
Uniola gracilis, *Mx.*
latifolia, *Mx.*
nitida, *Bald.*
paniculata, *L.*
Cynodon dactylon, *Pers.*
Eleusine Indica, *Lam.*
cruciata, *Ell.*
Elymus, sp.
Rottbœllia cylindrica.
ciliata, *Nutt.*
rugosa, *Nutt.*
Spartina glabra, *Muhl.*
juncea, *Willd.*
Zizania miliacea, *Mx.*
Gymnopogon racemosum.
Erianthus contortus, *Bald.*
strictus, *Bald.*
brevibarbis, *Bald.*
alopecuroides, *L.*
Leersia hexandra, *Kunth.*
Leersia lenticularis, *Ell.*
oryzoides, *L.*
Virginica, *L.*
Miegia gigantea, *Nutt.*
macrosperma, *Mx.*
Andropogon ciliatus, *Ell.*
furcatus, *Muhl.*
macrourus, *Mx.*
Neesii, *Trin.*
scoparius, *Mx.*
vaginatus, *Ell.*
melanocarpus, *Ell.*
tetrastachyus, *Ell.*
argenteus, *Ell.*

FILICES.

Aspidium acrostichoides, *Willd.*
Asplenoides, *Willd.*
cristatum, *Willd.*
thelypteris? *Willd.*
Asplenium ebeneum.
sp. nov.
Botrychium fumarioides, *Willd.*
Virginicum, *Swartz.*
Adiantum tenerum, *Willd.*
Polypodium incanum, *Swartz.*
hexagonopterum, *Mx.*
Woodwardia angustifolia, *Muhl.*
Virginica, *Willd.*
Onoclea sensibilis, *L.*
Pteris aqualina, *L.*
falcata, sp. nov.
Osmunda Cinnamonea, *L.*
regalis, *Mx.*
Lycopodium alopecuroides, *L.*
Carolinianum, *Mx.*
rupestre? *L.*
albidulum, *Mx.*

ART. II.—*Lectures on Diseases of the Chest.* By J. R. BUCK, M.D., Lecturer on the Theory and Practice of Medicine in the Louisville Summer School of Medicine.

LECTURE THIRD.

Phthisis.—By Louis and many other distinguished pathologists, tubercular matter in the lungs has been regarded as the cause and characteristic of this disease; and doubtless it is the cause of that group of symptoms, cough, pain in the chest, expectoration, hectic fever, &c., to which the term phthisis is popularly applied; but we must extend our inquiries further, and ascertain the cause of this deposit—the *causa causata.*

Tubercular matter does not exist in the lungs, or in any other cavity of the body as a natural condition, nor is it the product of a healthy action; it must therefore be preceded by morbid action, which morbid action, of whatever nature it may be, is the primary disease, the cause, while tubercular matter is the secondary disease, the effect of this cause. And as tubercular matter is found in almost every organ of the body this action must be general, pervading at least all the organs in which this deposit is formed. There is no propriety in regarding tubercles rather than hectic fever as the disease; strictly speaking, they are both diseases, but they are secondary to some primary disease—that is, effects or symptoms: regarding them therefore in this light, we are led to inquire, 1st, what is the nature of that primary morbid action of which these are the symptoms; and 2dly, are there any means by which we can detect this morbid action previous to the development of these symptoms? In the present state of our knowledge it is not possible to give an entirely satisfactory answer to the first of these questions. By many distinguished pathologists, and the current of popular opinion at the present day seems to be rapidly tending that way, this primary disease is regarded as inflammation, while by others equally distinguished, a morbid action directly opposed to in-

flammation, is regarded as the true cause of the tubercular deposit. What is the evidence upon which the opinion of its inflammatory origin rests?

1st. It is contended that tubercular matter is frequently found co-existing with well known products of inflammation, congestion, coagulable lymph, pus, &c.

2d. That tubercular matter is organized, containing blood-vessels susceptible of being injected, and softening from the centre.

The mere co-existence of tubercular deposits and inflammation certainly does not prove the dependence of one upon the other, and if it does, it no more follows that inflammation is the cause of tubercle, than that tubercle is the cause of inflammation. If tubercle was the product of inflammation, should we not find it oftenest when inflammation is most frequent, and should not those organs or parts of organs least liable to inflammation present a corresponding exemption from this deposit? Is this in accordance with the facts? In what organ is this deposit most frequently found? The lungs. Are the lungs oftener inflamed than any other organ of the body? They are not; gastritis and enteritis are far more common than any inflammation in the chest, and yet tubercular matter is rarely found in these localities, compared with its great frequency in the lungs. And in what part of the lungs is inflammation most frequently seated? The middle and lower lobes; while tubercle is almost uniformly seated in the apices; so constant is this, that the diagnosis of phthisis from chronic pneumonia often turns upon the location of certain phenomena; thus dullness on percussion, rude or bronchial respiration, at the base of the chest would indicate pneumonia or some other inflammatory disease, because this is the point at which inflammation is usually seated, while the same signs occurring at the summit of the lungs would indicate the existence of tubercular matter, this being the point where it is first deposited.

Miliary granules do not constitute the first stage of tubercle, but sometimes exist for a very long period without

manifesting the slightest tendency to pass into yellow or genuine tubercle. A Frenchman was brought into Blockley hospital with chronic peritonitis; he died dropsical several months after his entrance. The centre peritoneal membrane was studded with miliary granules, they had doubtless existed there from the attack of peritonitis, and yet there were no tubercles, and apparently no tendency, in any one of them to undergo any such change. A similar case occurred in this city, but a few months since, and some of the present class witnessed the examination of the body.

But it is contended that these granules sometimes occur in the lungs, and that they then follow the same order both in their development and in the changes which they undergo, that tubercular matter does. This matter exciting active inflammation in the adjacent structure of the lungs, coagulating lymph is thrown out, forming small indurated, semi-organized points—which constitute the miliary granules, and of course are developed as the tubercles are deposited and excite inflammation. Thus, granules become points of irritation, attracting to them more blood than exists in the surrounding healthy tissues, and therefore more liable to be the seats of deposits or secretions from the blood. Once existing here, it undergoes the same changes, and in the same order that it does when deposited in any other portion of the lung, and is thus mistaken for genuine tubercle passing through its different stages. Again, the granules are found in organs, the uterus, &c., in which tubercle is never seen.

The organization of tubercles rests upon the facts that blood-vessels have been injected into them, and that they begin to soften from the centre. If blood-vessels exist in the tubercular mass, as an essential constituent, then there can be no question of its being an organized substance. In some few instances, by a very delicate injection, one or more vessels have been seen to penetrate into or entirely through a tubercle. Now if the vessels were essential constituents of tubercle would they not exist, and would they not be found almost uniformly in tubercles of the same size; and in those

of double the size would not the vessels be either twice as large or twice as numerous? In every organ of the body, in every living animal, the size and number of the blood-vessels bear an exact ratio to the size of the organ supplied by them. But in tubercle no such proportion is observed; in a very small tubercle a vessel may occasionally be seen, while in others of the same or double the size no trace of a blood-vessel is discoverable. How then are these vessels formed? The tubercular matter is a secretion from the blood; it is thrown out so as to surround one or more blood-vessels—this matter may either partially or entirely obliterate the vessel by compression or it may have no effect upon it, being so moulded around the vessel as not to compress it at any point; in large tubercles when softening has taken place, when they have been converted into purulent matter, these vessels are still seen passing through the mass with the circulation uninterrupted; and even after this matter has been expectorated leaving an empty cavern, bands formed by blood-vessels in which the circulation is natural, are frequently seen passing across them. The rupture of these vessels is the cause of sudden death occurring in the advanced stages of phthisis. The blood-vessels then, met with in tubercle, properly belong to the healthy pulmonary structure, and have no ther connexion with tubercular matter, than that they pass through it, just as an artery or bronchial tube is sure to pass through a purulent mass, caused by suppuration of the surrounding tissue. Tubercles sometimes soften from the centre.

When this deposit first occurs it is in a fluid state; this fluid is gradually removed by absorption, the internal portion remaining till the last, so that when the surrounding tissue secretes pus, and this dissolves the matter, an excavation is formed in the centre, as though the softening had commenced at that point. In another case the softening does commence in the centre. The tubercle in its deposition encloses a small portion of the pulmonary structure which undergoes decomposition; is converted into purulent matter and dis-

solves the mass. But in a large majority of cases the softening commences at the circumference, the surrounding tissue throws out pus which insinuates itself between the particles of tubercle, and breaks it down dissolved in the pus. Such are the most prominent arguments for the inflammatory origin of tubercle. I have shown that inflammation most frequently occurred where tubercular matter is rarely formed—in the lower lobe of the lungs; and that tubercular matter is almost uniformly first deposited at the apices of the lungs, where inflammation rarely exists. The observations of that most accurate of all observers, M. Louis, upon many hundred subjects, show that inflammatory diseases, pneumonia, pleurisy, bronchitis, &c., &c., do not in the slightest manner predispose to phthisis when occurring in persons previously healthy, and that those occupations which produce bronchitis such as needle-pointing, fork grinding, &c., have no influence in the development of tubercle. It has also been shown by Andral that in inflammation, fibrin of the blood is increased, while in the earliest stage of tubercular deposit this element is not above the healthy standard; and in the tubercular diathesis before the matter secreted, the fibrin is diminished.

The tubercular diathesis is characterized by a weak, relaxed condition of the muscular system, pallor or dusky hue of the skin, transparency of the eyes, &c., while the inflammatory diathesis is characterized by a florid complexion, with great muscular energy. The ordinary products of inflammation are serum, lymph, and pus, and when any other morbid products are seen, whether consisting with these or not, it must be referred to some other morbid action.

What then is the nature of this primary disease? The only morbid condition constantly found is an altered state of the blood, and hence to this alteration must be referred the deposit of tubercular matter in the lungs.

The blood is deficient in fibrin; the serous or watery portion is increased, and the coloring matter and globules diminished. Other alterations of this fluid may also exist, but they have not as yet been detected.

The mucous membranes seem also to be diseased, perhaps as a consequence of the diseased condition of the blood. The lungs with the exception of the mucous lining of the bronchial tubes are no more diseased than any other organ of the body.

It is not possible to pronounce with entire certainty as to the exact nature of this disease; but still if previous to tubercular development, we can diagnosticate these alterations in the blood, the mortality of this disease will be very materially lessened; we may hope in almost every instance to prevent the deposit from taking place. And what are the symptoms of this condition? I have spoken of the changes in the mucous membranes. This is one of the most constant symptoms; morbid sensitiveness of the mucous membrane as indicated by the frequent occurrence of diarrhœa, broncorrhœa, bronchitis, &c.; such persons are liable upon the slightest exposure to contract *cold*, and this often of the most obstinate character, lasting for several weeks or months. Diarrhœa though not so frequent or so obstinate in this stage, is often present: in the more advanced stages it becomes one of the most prominent and threatening symptoms, when it is referred to tubercular enteritis; but in the post-mortem examinations of subjects when diarrhœa has been obstinate, there is often an entire absence of tubercular matter. Females are also liable to most exhausting leucorrhœa. This may or may not be accompanied by suppression of catamenia. Hæmoptysis is also a symptom of this stage, and by far the most important symptom; depending directly upon those alterations in the blood which have been mentioned as constituting the primary disease. It also occurs in the advanced stages as an effect of the tubercular deposit, and hence pathologists are accustomed to refer it, in all cases, to the presence of these foreign bodies. But how can tubercles cause hæmoptysis? They may be deposited in the course of a blood-vessel, compressing or entirely obliterating it and causing congestion, or they may excite inflammation in the parts and an afflux or congestion takes place as a consequence of this

inflammation. Hæmoptysis may then occur as an effort of nature to remove the superfluous blood in the part. In the still more advanced stages this inflammation terminates in ulceration, which extending to the large vessels occasionally gives rise to the most alarming and fatal hemorrhages; but this last cause commonly operates in the more advanced stages of phthisis, and cannot be referred to in explanation of that profuse hemorrhage which occurs months or years before the slightest tubercular deposit can be detected by the nicest physical examination. Neither can congestion be the morbid condition upon which this depends, for whenever hemorrhage is an effort of nature to relieve a congested organ, so soon as that object is accomplished the hemorrhage ceases. Now from the conformation of the lungs at the summit where tubercles are almost uniformly deposited first, an additional half ounce of blood could not exist without causing such alterations, both in the respiration and in the density of the lungs, as to be detected by auscultation and percussion. Hæmoptysis in the earliest stage of phthisis before any local disease is appreciable, often occurs to the extent of ten, fifteen, or thirty ounces in the course of a few hours; it cannot be that this is merely to relieve congestion, for that degree of congestion would almost entirely obliterate, not only the vesicular but the tubular portion of the lungs. What then is the cause of hæmoptysis in this stage? Andral states that the hemorrhagic diathesis consists in a diminution of the fibrin of the blood. To this alteration, therefore, together with an increase in the serous or watery portion, and a diminution in the globules, may be referred the strong tendency to hæmomtysis manifested in this stage. But you may ask why, if this hemorrhage depends upon an alteration of the blood, does it occur from one organ rather than another? Why are the lungs almost exclusively the seat of hemorrhage? No explanation so far as I am aware, has ever been attempted, and yet a series of experiments performed by Professor Horner, without reference to this subject, offered a very plausible, if not a perfectly satisfactory explanation of this

selection. Professor H. discovered a direct communication existing between the bloodvessels of the lungs and bronchial tubes, so that water poured into these bloodvessels or into the cavities of the heart, passed freely into the bronchial tubes. These experiments were made upon the lungs of man as well as of inferior animals, and the result was the same in all. Now supposing this delicate capillary communication to exist; while the blood is healthy, possessing its natural thickness and cohesiveness, it does not pass out of its ordinary course, but when it becomes thinner and looses this cohesiveness, it then passes freely from the vessels, through any outlet however small which may present itself into the bronchial tubes and is coughed or spit up.

Transparency or brilliancy of the eye is another symptom common to this stage. These symptoms, occurring in persons strongly predisposed to phthisis, either heriditarily or from conformation of chest, age, or any other cause whatever, indicate the actual existence of the disease, and in that stage when a prermanent cure may be effected.

Louisville, 1845.

ART. III.—*A Case in which the Skin of a Child born of white parents was so discolored as to suggest the idea of mixed blood.* By JOHN STACKHOUSE, M.D., of Patriot, Indiana.

The case, the particulars of which I am about to relate, possesses interest on account of its relations to medical jurisprudence, and is, therefore, probably worthy of being preserved.

A family moved into this neighborhood sometime since, and not long after they came, the mother, who was pregnant, was taken with a bilious affection which, though slight at first, finally confined her to her bed. One of the most distressing symptoms in her case was a difficulty of breathing, attend-

ed with something like spasms, when she was in the recumbent posture. This, I supposed, grew out of the pressure of the fœtus on the abdominal aorta. In about three weeks from the supervention of her indisposition she was delivered of a female child. At first, being occupied with the case of the mother, I paid but little attention to the infant, but on inspecting it closely the next day, I was induced by its appearance to suspect that it might be a mulatto. Its hair was very black, long, straight and fine, feeling somewhat woolly. The white of its eyes was clear, and showed more than it usually does in the white race. The iris and pupil had the dark complexion seen in the mulatto; the head, from the forehead to the occiput was longer, and from temple to temple narrower, than common; the base of the nose was well raised, and its point not broader or flatter than is usual in white children; its lips, if any difference, were somewhat thicker, and on the inside were of a bluish color; the hands and feet were delicate, and the latter corresponding in the heel and instep to the Caucasian form. The skin of the face was as dark as it is found on the mulatto, but there was something peculiar in its appearance, such as might be given by dusting the surface with a puff-ball. Along the back the color was very dark, as also down the belly; the remainder of the skin was of the mulatto color.

The meconium not having been discharged, I ordered castor oil, but my directions were not obeyed, and on the second day an evacuation of it took place, from the action of the colostrum. The child was observed to be unusually drowsy, to sleep more than was natural, and was roused by the mother, even to nurse, with difficulty. Something like spasms were early seen when she was raised up; at the same time her bowels were irregular, though the stools were not unnatural in color, nor was the urine discolored, nor her diapers stained by that secretion.

Symptoms of bad health continued for three weeks, when she was seized suddenly with an alarming convulsion. I found her shortly after laboring under what might have been

taken for a case of spasmodic croup. An emetic of ipecacuan was administered, which operated twice, with the relief of the symptoms, for the time. In the evening of the same day, however, the spasm returned, the breathing becoming very difficult. I resorted to blood-letting and a warm bath, from which she obtained pretty speedy relief, and passed a comfortable night, under the influence of minute doses of calomel and ipecac. The following day, about 11 o'clock, she was seized with another convulsion, which continued, with occasional intermissions, until 11 o'clock at night, when it subsided; but at the same hour the next day the spasms again supervened, thus seeming to have assumed a periodical character, recurring at regular intervals. In this manner they continued to come on for four days, and were not followed by fever. After this time, they began to anticipate, appearing daily at an earlier hour, and extending farther into the night, and were succeeded by fever. On the tenth day after she was attacked by convulsions she died.

The report having become common that the child was a mulatto, the parents agreed, the day after burial, that the body should be disinterred and examined. Six physicians were present at the autopsy.

The first circumstance which struck us, was the staining of the shroud of a deep saffron color, by a fluid which had run out of the nose. On opening the trachea an unusual amount of yellow mucus was found lining its walls. The bloodvessels of the brain appeared to be in a state of congestion, but the substance of that organ exhibited a healthy appearance; a tea-spoonful of water was contained in the right ventricle.

On laying open the abdominal cavity, the bowels presented a delicate tinge of yellow; the liver was cut into and appeared harder than natural, and otherwise unhealthy. The examination was not carried further.

Could this have been a case of jaundice, unaccompanied by the usual discoloration of the eyes, and of the urine?

Is it not possible that the bilious disorder of the mother

was communicated to the fœtus in utero, which came thus to present the appearances described?

Are there any certain marks for distinguishing a mulatto from a white child after several days' interment? Is the hair of mulattoes black, straight, and generally longer than the hair of white children; or is it curled at birth; or does it become curly in three or four weeks? Have they more black upon the back and abdomen than on other parts, and do their feet partake of the peculiarities of the Caucasian foot?

These are some of the questions which seem naturally to arise on a review of this case, and concerning which it would be well if the profession had more precise information, coming up as they occasionally do in courts of justice, and eliciting from medical witnesses the greatest contrariety of opinion. The reader will perhaps decide at once, that all the appearances exhibited by this infant arose from disease, and this decision may be a correct one; but it is enough to show that the question is not of such easy solution, that the persons who inspected the body of the child did not come unanimously to that conclusion.

REVIEWS.

ART. IV.—*A Treatise on Poisons in relation to Medical Jurisprudence, Physiology and the Practice of Physic.* By ROBERT CHRISTISON, M.D., F.R.S.E., Professor of Materia Medica in the University of Edinburgh; Fellow of the Royal College of Physicians, &c., &c.; Member of the American Philosophical Society—of the Royal Academy of Medicine of Paris, &c., &c., &c. First American, from the Fourth Edinburgh Edition. Philadelphia: Ed. Barrington & Geo. D. Haswell. 1845. 8vo. pp. 756.

[CONCLUDED.]

It is not our purpose to extend our remarks on this learned work much further, but a few points which we had not room in our last number to refer to we wish to notice briefly before taking leave of the subject. These will be found in the first part of the treatise, to which our remarks must be confined. If we should attempt to give an analysis of the second part, in which individual poisons are considered, we would be obliged to write a volume nearly as large as the one under consideration. For all that relates to the action of the several articles employed as poisons, their detection by chemical tests, and their treatment, we must refer to the treatise itself.

Our last article closed in the middle of the subject of the *moral evidence* of poisoning. We take it up here, and add some more curious illustrations of the devices to which crimi-

nals sometimes resort, and the excuses which they occasionally offer under circumstances of the sort.

Cases are recorded in which while the poisoning was confessed, a plea of ignorance was set up. The following very interesting case in which a mistake was urged by the accused, is given by our author:

"Sometimes it has been pleaded by the prisoner that he gave the poison by mistake. In all such cases, if he descends to particulars, which he cannot help doing, there is every likelihood that the falsehood of the defence will be made evident by the particulars of the story not agreeing with other particulars of the moral or medical evidence. At present it is only necessary to allude to inconsistencies in his story with the medical facts. No general rules can be laid down on the method of investigating a case with a view to evidence of this kind: I must be satisfied with an illustration from an actual occurence. On the trial of Mr. Hodgson, a surgeon, at the Durham Autumn Assizes in 1824, for attempting to poison his wife, it was clearly proved, that pills containing corrosive sublimate, and compounded by the prisoner, were given by him to her in place of pills of calomel and opium; which had been ordered by her physician. But it was pleaded by him, that being at the time intoxicated, he had mistaken, for the shop-bottle which contained opium, the corrosive sublimate bottle which stood next it. This was certainly an improbable error, considering the opium was in powder, and the sublimate in crystals. But it was not the only one which he alleged he had committed. Not long after his wife took ill, the physician sent the prisoner to the shop to prepare for her a laudnum draught, with water for the menstruum. When the prisoner returned with it, the physician, in consequence of observing it to be muddy, was led to taste it, before he gave it to the sick lady: and finding it had the taste of corrosive sublimate, he preserved it, analyzed it, and discovered that it did contain that poison. The prisoner stated in defence that he had a second time committed a mistake, and instead of water had accidentally used for the menstruum a corrosive sublimate injection, which he had previously prepared for a sailor. This was proved to have been impossible; for the injection contained only five grains to the ounce, while the draught, which did not exceed one ounce, contained fourteen grains."

The simultaneous illness of a number of persons shortly after a meal is a circumstance which will always awaken suspicion of poisoning, unless there be an epidemic prevalent, such, for example, as cholera, the symptoms of which simulate those of acrid poisoning. We remember an instance of this kind. A family consisting of eight or ten members was siezed with nausea and vomiting in a few minutes after dinner, and as cholera had been prevailing epidemically in the country, only a short time before, the sudden and alarming illness was ascribed to that disease. The physician of the family was summoned in great haste, and his fears at first were that the terrible epidemic had returned to the neighborhood; but on examination of the matters ejected from the stomach he found appearances of healthy bile, a thing not met with in the first stage of cholera, and his diagnosis, consequently, was that the illness had its origin in some other cause. This declaration set the various indiyiduals to inquiring what that cause could be, and in the end it was discovered that the cook, in preparing the dressing for a roast turkey, had fallen unluckily upon an ounce or two of tartar emetic ointment which had been set in the cupboard in a saucer. The cook having taken of the dressing more freely than any of the rest was more violently affected, but by the use of cordials all were quickly relieved of the symptoms. In this case no chemical analysis was necessary; the moral evidence was sufficient.

The evidence of poisoning becomes very strong when it appears that all who ate of a particular dish suffered, and all who did not escaped. This point, as usual, has been strikingly illustrated by our author in the following cases:

"At other times it happens that the several people affected, suffer in proportion to the quantity taken by each of a particular dish. Too much importance ought not to be attached to the absence of that relation; for it has been already mentioned that habit, idiosyncrasy, and the state of fullness of the stomach at the time, will modify materially the action of poisons. But when present, it will often form strong evi-

dence. A good illustration of what is now said may be found in the case of Thomas Lenargan, tried in Ireland for the murder of his master, Mr. O'Flaherty. He had for some time carried on an amour with O'Flaherty's wife; and afterwards to get rid of the troublesome surveillance of the husband, contrived to despatch him by poison. The crime was not suspected for two years. Among the facts brought out on the trial the most pointed were, that O'Flaherty's daughter and two servants were affected at the same time with the very same symptoms as himself; that they had partaken of the same dish with him; that the severity of their several complaints was in proportion to the quantity each had taken; and that others of the family, who did not eat it, were not affected.

"Another remarkable instance of this kind has been recorded by Morgagni. A clergyman, while travelling in company with another gentleman and two ladies, was setting out one afternoon to resume his journey after dining at an inn, when he was suddenly taken ill with violent pain in the stomach and bowels, and soon after with vomiting and purging. One of the ladies was similarly affected, but in a less degree; and likewise the other gentleman, though in a degree still less: but the other lady did not suffer at all. Morgagni found that this lady was the only one of the party who had not tasted a dish of soup at the commencement of dinner. But he was puzzled on finding that the gentleman who suffered least had taken the largest share of the soup, while the clergyman had taken less than either of the two that were seized along with him. He then remembered, however, that in the district where the accident happened, it was the custom to use scraped cheese with the soup in question; and on inquiry he was informed that they had each added to the soup a quantity of cheese proportioned to the severity of their illness. Here, therefore, Morgagni was led to suspect the presence of poison; and accordingly, after the whole party had fortunately recovered, the innkeeper acknowledged, that in the hurry of preparation, he had served up to his guests cheese seasoned with arsenic to poison rats."

In the case which follows we have an instance of the patient scrutiny which is often demanded if we would come at the truth in such circumstances. The author says—

"Cases of this nature are so instructive that no apology

need be made for mentioning one example more which lately came under my own notice. In the case of Mary Anne Alcorn convicted here in the summer of 1827, of having administered poison to her master and mistress, it was proved that a white powder was introduced in a suspicious manner into the gravy of baked beef, which gravy was subsequently poured over the beef. Now the master of the family dined heartily on beef, potatoes and rice-pudding, and mixed the greater part of the beef gravy with his pudding; the mistress ate moderately of the first slices of the beef, took very little gravy, even to the beef, and none at all to the pudding; a little girl, their niece, dined on pudding alone, without gravy; and the prisoner dined after the family on beef and potatoes. Accordingly the master suffered so severely as for two or three days to be in danger of his life, the mistress was also severely, but by no means so violently affected, the little girl did not suffer at all, and the servant had merely slight pain and sickness at stomach. The evidence thus produced was exceedingly strong, more particularly when coupled with the fact, that the beef used was half of a piece, the other half of which had been used by the family two days before, without any ill consequences."

These quotations will give the reader a just idea of the interest of this work, but no conception, we are fully aware, of the accurate scientific information in which it abounds. That can only be appreciated by a careful perusal, or by a reference to its pages, in some case of alleged poisoning, for instruction as to the tests applicable in such cases. We shall not attempt to follow the author into the second part of his work, but in closing give the following statistics which will be regarded with interest.

"It may be well to point out in the first instance the poisons in most general use. These will appear from the following tables. The first is compiled from a Parliamentary Return of the cases of fatal poisoning brought before the coroners of England in two years ending with 1838.

1. *Arsenical.*	White arsenic,	185	
	Yellow arsenic,	1	
			—186
2. *Acids.*	Sulphuric acid,	32	
	Nitric acid,	3	
	Oxalic acid,	19	
			— 54
3. *Mercurials.*	Corrosive sublimate,	12	
	White mercury,	1	
	Turbith-mineral,	1	
	Mercury (?)	1	
			— 15
4. *Other mineral irritants.*	Tartar emetic,	2	
	Sulphate of iron,	1	
	Chloride of tin,	1	
	Subacetate of lead,	1	
	Bichrom. of potash,	1	
	Percussion powder,	1	
	Carbonate of potash,	1	
	Black-ash,	1	
			— 9
5. *Veget. irritants.*	Colchicum,	3	
	Hellebore,	1	
	Savin,	1	
	Cayenne,	1	
	Castor seeds,	1	
	Morison pills,	1	
			— 8
6. *Anim. irrits.*	Cantharides,		2
7. *Opium.*	Opium or Laudan.	130	
	Opium & nit. acid,	1	
	Poppy-syrup,	4	
	Godfrey's Cordial,	6	
	Morphia,	1	
	Acetate of morphia,	1	
			—133
8. *Hydrocyanic acid,*	Med. Hydroc. acid,	27	
	do. & Laudanum,	1	
	Ess. oil of Almonds,	5	
	Bay-leaves,	1	
			— 34
9. *Other veget. Narcotics.*	Nux-vomica,	3	
	Strychnia,	2	
	Belladonna,	2	
	Hemlock,	1	
	Monkshood,	2	
	Spirits,	4	
	Fungi,	4	
			— 18
10. *Narcot. gases.*	Coal gas,		2
11. Unascertained,			22
Total,			543

"In France, in seven years, from 1825 to 1831, inclusive, there were 216 trials for poisoning, at which 273 persons were charged with the crime, and only 102 condemned. In 94 cases occurring between November, 1825, and October 1832, the substances employed were as follows:

Arsenic	54	Cerusse	1
Orpiment	1	Mercurial ointment	1
Verdigris	7	Cantharides	4
Corrosive Sublimate	5	Nux vomica	1
Fly-powder	3	Opium	1
Tartar emetic	1	Sulphuric acid	1
Sulphate of zinc	1	Nitric acid	1
Acetate of lead	1	Unascertained	5

"In the subsequent seven years there were 218 trials, and 153 prisoners condemned. Among 194 of these the following were the poisons used:

Metallic arsenic	5	Nitric acid	2
Arsenious acid	132	Muriatic acid	1
Arsenite of copper	1	Hydrocianic acid	1
Compounds of copper	13	Ammonia	1
Corrosive sublimate	10	Belladonna	1
Artificial orpiment	3	Opium	3
Sulphate of zinc	1	Morphia	1
Tartar emetic	1	Nux-vomica	1
Cerusse	1	Cantharides	10
Sulphuric acid	5		

"In Denmark, in five years ending with 1835, there were 99 cases of poisoning of all sorts, 16 by arsenic, 74 by sulphuric or nitric acid, 4 by potash, 1 by an unascertained caustic substance, 2 by opium, 1 by litharge, and 1 by copper. Only 5 cases, namely, 3 by arsenic and 2 by sulphuric acid, were cases of murder, or attempt to murder."

The publishers of this treatise have had it done up in two styles of binding, corresponding to its two-fold character of medical and law. It deserves the attention of both professions, and for the sake of liberal, enlightened science we could wish that it might find its way into the libraries of every lawyer and physician in the country. Y.

ART. V.—*A Practical Treatise on the Diseases peculiar to Women, Illustrated by Cases derived from Hospital and Private Practice.* By SAMUEL ASHWELL, M.D.; Member of the Royal College of Physicians, London, and Obstetric Physician and Lecturer to Guy's Hospital. First complete American from the last London edition. With notes by *Paul B. Goddard*, M.D., M.A.P.S., M.A.N.S., &c. Philadelphia: Lea & Blanchard. 1845. 8vo. pp. 520.

This treatise on the diseases of females is the fruit of twenty years' experience in that particular class of complaints. It is more than twenty years, says the author in his preface, since his attention was particularly directed to that subject, and for the greater part of that time his connexion with an extensive lying-in Charity, and his large private practice have

afforded him opportunities which, he may justly say, "fall to the lot of few practitioners." His treatise was commenced years ago, and has all the completeness and maturity which time and protracted labor could impart to it. "My aim," he remarks, "has been to produce a treatise on female diseases, true, simple, and practical, which may form a safe and efficient guide to the elucidation and curative treatment of many of these intricate, rapidly-progressing, and dangerous maladies." He adds, "I have endeavored to write in a plain and perspicuous style, with scrupulous accuracy as to facts; and in reference to opinions and treatment, nothing is recommended, the probability or worth of which, my own experience has not confirmed."

These are important ends, and if the author has compassed them to the extent of his wishes, his work may safely be pronounced one of the first in the language. We believe this to be the case. We consider that the effort is a most successful one. We regard the volume before us as one of the best guides to which the practitioner could have recouse in this most perplexing order of diseases, and as such we cordially recommend it to the profession.

The complaints peculiar to women are arranged by Dr. Ashwell in three great divisions; namely: functional, organic, and those which are incident to the pregnant and puerperal states. He appropriates comparatively little space to the anatomy and physiology of his subject, but devotes himself strictly to pathology and treatment, which in a work for reference is a desirable feature.

The affection first considered is *chlorosis*, which he describes in three forms: as a mild and incipient, an inveterate and confirmed, and a complicated disease. The disease, he says, is occasionally met with in our own sex, of which he has seen one or two marked instances. It depends primarily on a morbid condition of the blood, which, in the female, secondarily affects the ovaries and uterus, by retarding their growth. It has nothing in it of an inflammatory character, but is most intimately connected with anæmia. Hence we

are not to conclude that the lancet is called for in affections of this sort, although they may be attended with severe pain and a rapid pulse. These symptoms are rather indicative of irritability, "and demand narcotics, carminatives, and, at the most, counter-irritation, not bleeding, active purgatives, or spare diet."

Chlorosis never exists without more or less of amenorrhœa, but the latter may prevail for a length of time without the former, although in the end symptoms of chlorosis are pretty sure to be developed. The frequent concurrence of these diseases has led many to conclude that chlorosis and amenorrhœa are convertible terms; but this is a mistake; as already stated either one may bring on the other, and this is the relation which subsists between them. They frequently present themselves together in girls about the age of puberty, and if neglected lead to fatal consequences, the brain, digestive apparatus, or lungs becoming involved. It is hence the duty of the physician to admonish the parents of a danger which may be unsuspected, that by medicine, or a change of air and habits the malady may be checked in its incipient stage.

"The treatment of the most common form of chlorosis, namely, that accompanying puberty, may be regarded as the type of the treatment of all the others; embodying the principles, which, with greater or less modification, are universally applicable. It is here, at the very threshold of the disease, when its character is not understood, or when it is treated empirically, that the greatest error is committed. It is viewed as a local, not as a constitutional affection; and many are the individuals who have been sacrificed to the vain and ignorant attempt of prematurely establishing menstruation; mercury, drastic purgatives, and emmenagogues, having irretrievably destroyed the constitutional power and paved the way for phthisical disease.

"It is not my intention elaborately to comment upon certain great mistakes in the *physical education* of female youth. And yet, I must be excused, if I direct attention to the diet, air, exercise, and clothing of the sex. It will readily be granted, that if, in these particulars, there is extensive deviation from the dictates of nature and common sense, there must be a proportionate risk of debility and disease. In our

own changeable climate, it behooves the guardian of female youth to be especially prudent; and I am one of those who think, that it is scarcely possible to study these matters too closely. If the national practices in these particulars could be changed—and the remark applies with great force to the middle and higher classes of society living in cities and towns —chlorosis, imperfect puberty, and amenorrhœa, would be uncommon, instead of being, as they now are, extremely prevalent diseases.

"Chlorosis is a rare affection in rural districts; where female youth are much in the open air, where it is not unfashionable to walk and run, and where it is not considered a gross violation of good breeding to sport and play with activity and vigor. Such girls acquire energy of system, each organ is developed, the blood is abundant and of excellent quality; nutrition is healthy, and puberty is attained without difficulty."

A morbid state of the blood lies at the basis of the disease and must be corrected by improving the digestive functions. A due evacuation of the bowels must be daily secured, and for this purpose Dr. Ashwell prefers aloes, rhubarb, the sulphate of soda and manna, to be aided if necessary by the hydrargyrum cum cretâ as an alterative. An injection of a pint of warm water into the rectum, two or three times a week, he also looks upon as a valuable measure for unloading the large intestines. Aromatics are advantageously combined with the laxatives, and, above all, iron at a particular stage of the disease is the remedy upon which our main reliance must be placed. But it cannot be resorted to without due preparation of the system; if the iron be given before the function of the digestive apparatus has been improved by purgatives, and while the tongue is still loaded and foul, aggravation of symptoms will be the consequence. This condition being obviated, and only the peculiar debility and pallor of chlorosis remaining, a single grain of the sulphate of iron, or even twice that quantity, may be most beneficially tried. Occasionally, as stated by our author, the effect is almost magical, and is manifest in proportion as it does not

confine the bowels nor induce febrile heat. Dr. A. prefers to combine the iron with narcotics, and recommeds the following formula:

"Ferri ammon. ʒiss, extr. humuli, extr. papav. alb. ää gr. xv., ol. cassiæ m. xv., M. ft. pil. xxiv. Sumat. i. vel. ij. bis terve quotidie."

We agree with our author, that a most important addition to our remedial resources in this affection has been made in the *iodide of iron*, some interesting cures by which we have witnessed. He indicates in the following passage the circumstances under which it proves most beneficial, as well as a most eligible form in which to administer it:

"The iodide of iron has been extensively tried, both in hospital and private practice, and with undoubted success; especially when glandular enlargements and other indications of a strumous habit, have been associated with the chlorosis. I give it in the subjoined form.

"Ferri iodidi gr. xvi., tinct. columbæ vel. gent. c. ʒi., aquæ distillatæ ʒvii., ft. mist. Sumat coch. ii. magna, bis terve quotidie."

The next disease, *amenorrhœa*, is of much more frequent occurrence than the one just treated of. There are two principal forms of it: amenorrhœa of retention, and amenorrhœa of suppression. The author is very full on all the points connected with the pathology and treatment of this complaint, and indicates with clearness the various conditions which call for variety in the course of cure, such as congenital deficiency or diseases of the organs of generation, a too plethoric, or a too delicate and irritable state of the body, &c. In a case of recent and acute suppression in delicate, spare women, who are highly nervous and irritable, the following is his plan of treatment:

"General bleeding is inadmissible, nor are leeches usually advantageous: metastasis of the pain, but rarely its permanent removal may be produced by their application. Active purgatives are necessary, for the bowels are commonly load-

ed, and hard scybalous fæces long retained in the large bowels, excite and maintain painful irritation. A general warm bath at 96°; a warm mustard hip-bath or mustard pediluvia may be advantageously employed. The following antispasmodic draught may be given every three or four hours, till the symptoms begin to subside.

℞ Liq. Ammon. Acet 3ii vel. iii.
Tinct. Castorei vel. Asafœtidæ 3ss. ad 3j.
Pulv. Ipecac. C. gr. iv. vel. v.
Mist. Camph. 3vii. M. ft. Haust.

"In addition, if pain be severe, a pill, containing two or three grains of camphor, and two grains of antimonial powder may be exhibited.

"Injections into the rectum sometimes produce an almost magical effect. Laudanum, asafœtida, and poppy syrup are employed for this purpose, (vide formulæ) and as it is necessary that they be retained for some time after their introduction, a piece of sponge or a knapkin, should be kept firmly and closely applied to the extremity of the bowel. When narcotic enemata are injected, the quantity should not exceed two or three ounces, as more will unnecessarily dilute the anodyne ingredient, and by distending the gut, induce expulsive action. The pain and spasm, in this form of acute suppression, are thus relieved, and menstruation does oftener recur during the immediate period, in this, than in the inflammatory species; but in neither can it be invariably expected. If, however, the treatment has fortunately re-established the discharge, every precaution ought to be employed to prevent the exposure of so susceptible a patient to any of those causes which might induce a relapse. It need scarcely be remarked, that an attack, either of inflammation or irritable suppression, is often the prelude to more permanent menstrual obstruction; and if month after month elapses, without the performance of the secretion, chronic suppression to be next treated of, will be the result."

In chronic suppression, the state of the system determines the character of the treatment, which must be antiphlogistic if plethora exist, and tonic and stimulant if the reverse. But there occur cases often in which complications make it necessary to modify the plan of cure. The following quotation from our author will give a good idea of the discrimination

which is necessary to the successful management of this disorder:

"The six cases of complicated amenorrhœa were very interesting. In one, it was associated with chorea. The patient, after protracted treatment, was eventually cured by sulphate of zinc, and the injection of liq. ammoniæ into the vagina. In another, amenorrhœa was complicated with epilepsy. The medicine prescribed was ferri sulph. gr. i. pulv. digitalis gr. i pulv. myrrhæ gr. ij. mucil. Acaciæ q. s. fiat pillula ter die sumenda. It is worthy of remark, that these pills were persevered in for three weeks, without any injurious consequences from the use of the digitalis; a circumstance attributable, probably, to its combination with the iron. At this period, the catamenia appeared; and there has been no return of the fits. In a third case, hemiplegia was attendant on the amenorrhœa. This complication was tedious, and difficult to manage. At first, the mist. ferri c. was prescribed; afterwards, the sulphate of zinc; and an iodine liniment was well rubbed over the spine, night and morning. Menstruation was eventually established, and the patient regained the entire use of the side. In the fourth case, there was tænia with the amenorrhœa. In addition to the other remedies, the ol. terebinth. was curatively employed. In the fifth patient there was vicarious discharge from the mammæ, in conjunction with amenorrhœa; the mist. ferri c. was ordered, as well as the daily employment of the ammoniacal injection. The last patient had, in addition to the amenorrhœa, a peculiar nervous affection of one of her lower extremities which completely subsided when the catamenial function was, by appropriate remedies, healthily established."

Among emmenagogues Dr. A. speaks favorably of *electricity*, moderately applied, where the system is not plethoric, where pregnancy is not suspected, where, in a word, the disease is local, all constitutional symptoms having been subdued. Stimulating injections are also mentioned in encouraging terms.

"These were formerly much employed, and a variety of irritating ingredients entered into their composition; at present, as a vaginal enema, the Liq. Ammoniæ fort. in milk, is generally administered. I have often used it with success during the

last twelve years, both in hospital and private practice. It rarely does good, if it is not attended and followed by a pungent sensation of heat, tingling, and some pain in the vagina. Its use should be commenced three days prior to the expected period: and the patient, after each injection, shoud apply a napkin to the vulva, so firmly as to cause the injected fluid to be retained for ten or fifteen minutes. It is not a safe remedy where there is uterine congestion. In two such cases dangerous inflammation of the cervix and upper part of the vagina followed its use. Where, however, uterine torpor is unaccompanied by congestion and acute irritation, the ammoniacal injection is often efficacious. Occasionally, like electricity, it produces menstruation at once, while, in some women, in common with the most approved remedies, it is without effect. The strong mustard hip-bath, used twice during the day, the patient remaining in it for nearly an hour each time, at a temperature of 96 or 98°, is an effectual auxiliary remedy."

He gives the following formula for the injection:

"℞ Liq. ammon. fort. ʒi. vel. ʒiss., lactis tepid. ℥xvj. M. ft. Injectio vaginalis. A third part to be passed into the vagina three times daily.

In the next chapter the author considers *vicarious menstruation.* This is often witnessed as hæmatemesis, hæmoptysis, or in a discharge of blood from the nipples, and at other times in the form of a severe salivation. Leucorrhœa is also vicarious, in some instances, of the sanguineous menstrual discharge. Dr. Ashwell has the following on that head:

"There is in health a secretion, exceedingly small in quantity, of colorless transparent mucus, poured out by the uterine lining membrane, for the purpose of lubricating the opposite surfaces of the organ, and preventing friction and adhesive inflammation. When excessive, constituting leucorrhœa, it is occasionally, and more frequently than blood, vicarious of menstruation. Strictly speaking, there is amenorrhœa, because a mucus, instead of a sanguinous secretion, is furnished by the minute extremities of the uterine arteries. But there is activity instead of torpor; and it will be found on inquiry, that all the symptoms denoting menstruation reg-

ularly appear, especially when this condition is vicarious of the catamenia at an early age.

"The disease is most common in delicate and susceptible girls, at the epoch of commencing menstruation. I have seen it also in weak and exhausted women, and I have now under my care a patient nearly thirty-five years old, who, in consequence of frequent abortion and protracted suckling, being exceedingly impoverished and feeble, has for the last 12 months, suffered from vicarious leucorrhœa. The regular menstrual period has been exactly observed, and although the discharge has been fully as abundant as the natural catamenia, and has lasted three or four days, it has never, till the last month been colored. Conception in these cases is not an improbable event, as in several females who have come under my notice, where the menstruation was colorless, pregnancy has occurred.

"In early life this vicarious leucorrhœa, if from its amount and periodical return, it is believed to be uterine and not merely vaginal, removes all impression of congenital defect or malformation. Nor, if the interval be free from excessive mucous discharge, is the health much deranged: a circumstance marking the difference between this form of vicarious menstruation, and chlorosis and amenorrhœa. It rarely happens that the uterine function is fully developed independently of medicine or change of air, although it is quite possible that, under favorable circumstances, perfect menstruation may almost spontaneously occur."

The treatment, as in the case of hemorrhage dependent on amenorrhœa, consists in remedies addressed to the uterus, such as purgatives, cupping or leeching, electricity, emmenagogues, and subsequently in the use of iron, aided by a nutritious and easily digested diet, exercise, and pure air. These measures will so far improve the blood and impart constitutional vigor, as sooner or later to induce healthy menstruation.

Dysmenorrhœa is the subject of the succeeding chapter, and is divided into a variety of species; as irritable or neuralgic, plethoric, inflammatory and congestive dysmenorrhœa, and amenorrhœa dependent on mechanical obstruction.—The pathology in each case being peculiar, a different plan of cure is demanded in each, and the great point is to arrive at a

correct diagnosis in every instance. If that be clearly made out the course of treatment is easily determined. The neuralgic form must be treated by narcotics; the congestive and inflammatory by depletion, and so on. Acetate of ammonia has been highly recommended by a French writer in cases of painful menstruation, attended by morbid excitement of the female genital system, and Dr. Goddard, in a note to this work, mentions a case in which he witnessed the happy operation of the remedy in doses of a tablespoonful three times daily. It allayed the pain, which at previous menstrual periods had been very great. This remedy is said to be equally applicable in cases of profuse menstruation, or menorrhagia.

The fifth chapter is taken up with formulæ of remedies, which will be very convenient for practitioners. In the sixth chapter *menorrhagia*, or inordiate menstruation, is discussed. The author divides it into two forms, in the first of which the discharge is profuse, but unattended by uterine bleeding; and in the second with a profuse menstruation, there is attendant also loss of blood from the uterine arteries. The latter he considers under three varieties, namely; acute or active menorrhagia, occurring in the plethoric and robust; the passive or chronic, which is met with in delicate, exhausted, and hysterical females; and the congestive attendant upon middle or advanced life. These distinctions are valuable in a practical point of view, each variety demanding a peculiar treatment. Even in the first form, profuse menstruation, the plan of cure must vary with the habit of the patient, which may be plethoric and robust, or delicate, pallid and feeble. And in cases where hemorrhage exists it is of still more consequence, that the state of the system be carefully considered in the application of remedies. These modifications are pointed out by our author with great clearness. In order to be able to prescribe judiciously under such circumstances, Dr. A. justly remarks—

"It is right in every protracted hemorrhage from the uterus to *examine*. By this alone, and I allow that even then we fre-

quently fail, can we expect to ascertain whether there be polypus, a sub-mucous tumour, or so much increased bulk as to render the existence of organic lesion highly probable. In the majority of examples of congestive menorrhagia, I believe that increased uterine bulk, fulness of the cervix, and openness of the os, constitute the whole of the diseased change."

The author speaks of injections into the uterus as efficient but at the same time as very hazardous remedies. He says:

"In conclusion, I think it right to observe, that I have twice witnessed, in most extreme cases, the beneficial effects of injecting into the uterine cavity a small quantity of the *spirit of turpentine.* It will not be supposed, after what I have heretofore said, that I advise this procedure on slight grounds. I believe such injections to be very certain but highly hazardous remedies, and they never ought to be employed except as *derniers resorts.* The uterus also has been injected with a small quantity of lead and alum in solution; and the narrator of the treatment says: 'the remedy is a dangerous one, for in two instances it was followed by vomiting, uterine inflammation, and death.'"

These remarks are followed by a case of so impressive a character that we cannot refrain from subjoining it:

"I first employed the turpentine in a menorrhagia where every previous remedy had proved ineffectual. The case is as follows:

"Mrs. G., forty-five years of age, and habitually intemperate, requested me to give her some medicine to prevent hemorrhage from the womb. She was large, and rather bloated, but still capable of great exertion. She was married, was the mother of several living children, and had miscarried a few months previously. I remonstrated with her on the excesses to which she acknowledged she was prone, and fully explained to her, that they were the source of the bleedings. The uterus was large and soft, and the cervix was full and flabby: but although the os was sufficiently patulous to permit of the entrance of the finger, I could not detect further structural change. An examination by the rectum was also made. She lived in my immediate neighborhood, and as I had frequent opportunities of seeing her, she adopted for a

time the prescribed plan and diet. By purging during the intervals, and especially before the period, the losses were for a few months greatly diminished. At length she thought herself so well, as to be no longer under the necessity to adopt any plan which curtailed her usual indulgences. I lost sight of her for some months, and I know during the interval, that highly seasoned food, and large quantities of ale and wine were daily taken. One evening, I was requested in haste to visit her, and I found her almost dead from uterine bleeding. Her husband informed me, that since my last attendance, she had very frequently lost large quantities of blood, and he had thought that on several occasions she must have died, but that hitherto she had always slowly rallied. Brandy and ammonia and ergot, restored animation, but she had not said many words before a fresh gush again induced alarming syncope. Cold water was dashed over the face, ammonia was applied to her nostrils by a camel-hair pencil, and after a very lengthened fainting, she again rallied. On inquiry, I found the attack had already lasted two days; and it was evident that her powers were exhausted. Her voice was scarcely to be heard, the pulse was quick and feeble, and her breathing was very short, the countenance was livid and anxious; in fact, it seemed as though another gush would destroy her. Her medical attendant, Mr. Burton, plugged with sponge but ineffectually. On the instant I proposed to inject a small quantity of spirit of turpentine; and having procured a gum-elastic male catheter, and cut off its end, so that there was an open mouth, I introduced it through the os, which was very patulous, into the uterine cavity, and by a syringe I injected about two or three drachms of the spirit. Soon afterwards I plugged the vagina with tow. There was no further bleeding, but the pain was indescribably great, as though there were burning coals in the uterus and bladder. The evidences of hysteria seemed so clear, that I feared we must have taken away blood. Fomentations of poppy and conium applied very hot; camphor and laudanum, together with a purgative enema, allayed the intense suffering. In twenty-four hours I removed the tow, and there was no further bleeding. Menstruaton never returned, and from the continued and occasionally severe pain which followed the use of the turpentine, I suspect that adhesion of the sides of the uterine cavity resulted from the inflammation. Her former intemperate habits were soon resumed, and in less than a year she died. No inspection could be obtained."

And with this quotation we reluctantly close our notice of this excellent treatise. Our limits do not admit of a full analysis of its varied and instructive contents, and so we have confined our selections to the first few chapters. These, we feel very fully persuaded, will create in our readers a strong desire to see more of a work, in which complaints in every way so interesting to the practitioner have received so clear, practical, and full an illustration. It is for sale in this city by Mr. James Maxwell, through whom we are receiving from the publishers many similar favors.

ART. VI.—*On the Anatomy and Diseases of the Urinary and Sexual Organs.* Containing the Anatomy of the Bladder and of the Urethra, and the treatment of the Obstructions to which these passages are liable. By G. J. GUTHRIE, F.R.S., Surgeon to the Westminster Hospital, and to the Royal Westminster Opthalmic Hospital, &c., &c. From the Third London Edition. Philadelphia: Lea & Blanchard. 1845. 8vo. pp. 150.

This monograph describes the nature and treatment of a class of affections which often prove exceedingly embarrassing to the young surgeon. The author professes to have aimed at rendering the directions for the management of each particular complaint so plain, "that any one of even moderate capacity may understand and practice them." He has divided his work into two parts, of which the thin volume before us is the first; "the second will follow with the least possible delay."

The part published treats of the following subjects: the structure of the bladder and of the urethra, the formation of spasmodic and permanent stricture, and the means of its cure, the treatment of impassable stricture, the suppression and retention of urine, and irritation of the membranous and prostatic parts of the urethra.

The first chapter opens with the following remarks expressed in a style so chaste and elegant that we take great pleasure in quoting them:

"The continual calls on the bladder in both sexes, from the commencement to the termination of life, under circumstances which are frequently foreign to their natural state; and the double function which the uretra has to perform in man, during a long period of what is often an artificial mode of living, tend constantly to their derangement; and whilst, like every other part of the body, they contain within them the seeds of their decay, which would sooner or later develop themselves in the ordinary course of nature, they are often caused to germinate at a much earlier period, by the irregularities and vicious propensities of man himself.

"The diseases to which these parts are liable would be rarely experienced until the middle period of life was passed, if it were not for the indulgencies and irregularities which usually prevail in a highly civilized community, and more commonly give rise to them. They are not, however, the less sensibly felt, because they are sometimes merited. They are always, when severe, the source of great anxiety of mind and distress of body, leading gradually to premature decay; and terminating not unfrequently in a protracted and painful dissolution. At an early period, surgery can afford great and important relief; it can as often prevent further mischief as it can cure that which exists, and is a source of no less satisfaction to the surgeon than of delight and happiness to the patient. I know of no diseases for the cure of which the gratitude of one man to another is more often and more cordially expressed.

We shall not follow the author in his description of the anatomy of the urinary organs, but give from the chapter on the structure of the bladder the subjoined instructive observations:

"When the bladder is contracted and empty, the urine passes readily into and gradually dilates it, until the desire for expulsion comes on and leads to its evacuation. A little more or a little less seems to have no influence in preventing the urine from finding its way in, the weight of the column descending from the kidney readily overbalancing to a certain point the resisting power of the coats of the bladder.

When the bladder is distended, it no longer yields easily, the ureter is pressed upon by the muscular wall in its passage through it, and the further entrance of urine is in a great measure prevented. If the obstruction be long continued, the ureter above this part is gradually dilated from the size of a crow quill to that of a man's thumb, and even larger; the pelvis of the kidney increases in size, a low or chronic inflammation is induced, the secretory organs are pressed upon and partially removed, so that the kidney may become at last an almost empty bag separated by partitions, indicating only the former existence of its lobes. A total suppression of the secretion may, under such circumstances, take place at any time. The most remarkable example of the kind which has come under my observation, occurred in the case of a lady who suffered from a cancer of the uterus; the disease after a time extended towards the ureters, which at last were embraced and pressed upon by it as they entered the bladder. The lady, as this took place, began to suffer more from derangement of her urinary apparatus; the bladder was found ultimately, on passing the catheter, to contain little or no water; she fell into a state of low fever, became paralytic, afterwards comatose, and died. On examination, the orifices of the ureters were found in a sound state, although the ureters were impervious at the part where they were grasped by the diseased structure; above this they were greatly enlarged, and the kidneys were much diseased and sacculated. The peculiar manner in which the ureters enter into the bladder is, then, an admirable provision of nature for the purpose of preventing too great a distention of the bladder rather than of the ureters, for nature can accommodate herself for several days to a complete suppression of the secretion of urine, and for a very long time to a partial secretion of it."

The second chapter considers the structure of the urethra and the instruments used in treating its complaints. It contains very full directions with which the practitioner ought to be familiar when proceeding to correct disorders of this passage. Speaking of false passages in the urethra the author says:

"Dr. Civiale, who saw, when in London, the care bestowed in the preservation of specimens of diseases of the bladder

and urethra, in which false passages had been made, and which care is not taken in Paris, where they are rarely preserved, and where they are consequently not seen, concludes, in his 'Memoire sur l'Anatomie Pathologique des Retricissemens de l'Uretre,' that these evils have arisen in a great measure from the faulty construction of our catheters and sounds, which he considers to be too much bent. In London, we are apt to think that false passages occur more frequently abroad than at home, from the circumstance of their instruments being too conical and too straight."

The chapter on strictures is highly instructive. This affection may be spasmodic or permanent. The former, from the following remarks of our author, would appear to be a rare occurrence:

"The only case of what may be called pure spasmodic action which has come under my observation, occurred in a gentleman, who came to my house twice in the course of several years, declaring he could not make his water, and desiring to have a catheter passed; which was each time done without the least difficulty. The first time he came he was aware of his situation; said it arose from anxiety of mind relating to family affairs, and that the passage of the instrument would immediately and effectually relieve him. If there were an obstacle, and I was by no means certain of there being any beyond a hesitation, it was at the commencement of the membranous part of the urethra, and arising, I suppose, from a spasmodic contraction of the compressor urethræ muscle. As this gentleman suffered no kind of inconvenience at any other time, I am induced to believe that there was no particular irritation in the urethra, and that it was, as the cause is unknown, what may be called accidental spasmodic. I have heard of a lawyer, but I do not recollect where I heard it, who often suffered in this way when engaged long in court in a difficult case, and who was always relieved in a similar manner; but here I should say it is more than probable the individual was laboring under some slight permanent irritation in the urethra, or that it was at least in an excitable state at some one part near the bulb. A healthy man suffering from anxiety and alarm, often feels a desire to pass his water, which he cannot at all times restrain, and it flows whether he will or not; but if he has the power of restraining it for hours, then, indeed, the powerful contraction of the

compressor urethræ may bring on irritation in the part, and spasm of the muscle; but this is the result of its own irregular and long continued action, inducing irritation as the first step to inflammation, and is of exceedingly rare occurrence; still it is not an instance of pure spasm, like the case I have related, in which the incapability was preceded by no uneasiness until the attempt at micturition was made."

The fourth chapter treats of symptoms of stricture, concerning which the author makes the following impressive remarks:

"The symptoms of stricture, like those of most other diseases not immediately affecting life, are often as slow in their progress, and as insidious in their nature, as they are appalling in their results. They are rarely present until after the age of puberty; are common from that period until after five and forty years of age; and seldom occur as the consequences of stricture afterwards: so that when an elderly man complains of symptoms of this kind for the first time, they usually indicate derangement of the prostate, the bladder, or the kidneys. I have a gentleman, advanced in life, now under my care, who sent for me for a retention of urine, declaring he had no stricture; yet he admitted that his urine for 30 years had passed in a very small stream, and that he had had occasionally a stoppage of water. This was clearly a complaint of the urethra of long standing; and, on examination, I found a stricture at five inches and a half, which would not admit, for several days, the smallest bougie."

After this follow directions for examining the urethra, and then remarks on the cure of the malady by dilatation. The work must be consulted for information on these points, since a compression of the details of practice into the limits at our disposal would be utterly impossible.

In the same chapter the mode of destroying strictures by caustic is described at length, and hemorrhage, and the division of a stricture are also considered.

The following chapter is taken up with the treatment of impassable stricture, of which the author says:

"When a stricture is impassable by the bougie, but is permeable by the urine, although it flows with difficulty, and there

is no urgent necessity for the immediate removal of the obstruction, two different modes of proceeding may be adopted for its cure; one by a long-continued and equable pressure made on the face of the stricture by a pliable hollow gum-elastic bougie, with which I have usually succeeded in overcoming the obstruction when not of any great extent; and of effecting a passage into the bladder, without giving rise to the alarm and anxiety which more vigorous measures sometimes occasion. The other, by steady pressure made for a short time at intervals with a solid instrument, until the obstruction is gradually overcome."

Regarding the mode of obviating the obstruction he has the following:

"The best dilating material is a pliable hollow gum-elastic bougie, of a medium size, and perfectly smooth, and tolerably round at the point, so that it may give as little uneasiness as possible. This instrument is to be fixed in the urethra in the same way as a gum-elastic catheter is fixed in the bladder; it should project about one inch beyond the orifice of the urethra, and rather less than more. The point should press against or rest upon the stricture with the greatest possible gentleness, so that it may not give rise to inflammation or ulceration, and yet should press just so much as to cause absorption. It is an admitted point in the animal economy, that new-formed parts, whether laid down in reparation or in disease, do not resist a stimulus in the same manner as parts of original formation. They are in fact removed by the action of the absorbents under the application of a stimulus, which has little or no influence on parts which have undergone no change, and are coeval with the existence of the individual. The pressure made by the point of the bougie should therefore be nicely regulated, so that it may do this and no more. The patient readily learns what is wanted, and as he can feel when the surgeon cannot, he soon understands how to manage the bougie himself, and can take it out, wash it, change it, or replace it, as he pleases. If he should be a very restless, fretful, or naturally irritable man, it may prevent sleep or prove inconvenient, in either of which cases it may be removed for two or three hours, at the pleasure of the individual, whose private affairs may otherwise render this indulgence necessary. If any further irritation should take place, it ought to be subdued by warm fomentations, by

opiates, and perhaps by the application of a few leeches. There are few cases which require anything more, provided the patient will be perfectly quiet, live moderately, and preserve the recumbent position, until the irritation has subsided."

On this topic, as on all the points discussed, Mr. Guthrie shows himself the experienced surgeon, and illustrates his views with striking and instructive cases. It is seldom indeed, that we meet with a work evincing so much of the scholar and the man of practice. One is at a loss which most to admire in it, its elegant style, or its practical usefulness.

The remaining chapters treat of suppression and retention of urine, and irritation of the membranous and prostatic parts of the urethra, but as we find it impracticable to present any thing like an analysis of their contents in the few pages we are permitted to occupy with this notice, we take leave of the volume, earnestly recommeding it to the careful study of the young surgeon. The publishers have conferred a favor on the American profession by bringing out a work of so much merit.

ART. VII.—*Principles of Forensic Medicine.* By WILLIAM A. GUY, M.B. Cantab., Fellow of the Royal College of Physicians; Professor of Forensic Medicine, King's College, London; Physician to the King's College Hospital, &c., &c., &c. First American Edition. With Notes and Additions, by CHARLES A. LEE, M.D., Professor of Materia Medica and General Pathology in Geneva College, &c., &c. N. York: Harper & Brothers. 1845. 8vo. pp. 711.

This volume is a rich repository of facts, to which the student of medical jurisprudence, and the practitioners of medicine and law may have recourse with equal advantage. Its value to the profession in this country has been very materially enhanced by the additions of Professor Lee. As a work of

labor and research it cannot pretend to compete with the "Elements" of our countrymen, the Drs. Beck, but its merits as a manual are not the less on that account. It is concise, lucid, and practical, with sufficient details to make the principles clear, without burdening the memory of the reader. The plan of the author in treating the various topics, is to begin with a short statement of the existing provisions and requirements of the law in England, to which Dr. Lee has added whatever is peculiar in the jurisprudence of this country relative to the subjects discussed. Having stated what the law is, he next takes up and investigates the chief medical questions likely to arise out of it, and under each head gives the necessary practical rules for medico-legal examination. Altogether, the work is an excellent epitome of all that has been established in medical jurisprudence, and will be found an instructive and entertaining volume for any gentleman of taste, whether engaged or not in either of the professions for which it was written.

This is the second republication in this country on the subject of Medical Jurisprudence within the present year, the treatise of Mr. Alfred Taylor having appeared in Philadelphia simultaneously with the work of Dr. Guy in New York. We commended the former of these publications to the favorable regard of our readers sometime ago. Since we wrote that notice, we have seen that Mr. Taylor has charged Dr. Guy with having borrowed from his work without suitable acknowledgments, which has given rise to some bitter sparring between these authors. This is to be regretted. Guy, it seems, was the pupil of Taylor, and if he brought away from the lectures the thoughts, and often the words, of his instructor, it is no more than was to have been expected. But he has acknowledged in general terms his obligations to Mr. Taylor, and that, it occurs to us, ought to have satisfied him. Both works are largely indebted to previous publications, among the rest to the American volumes to which we have already referred. Our countrymen have quite as much cause to quarrel with Mr. Taylor, as Mr. Taylor has to quarrel with Dr. Guy.

SELECTIONS

FROM

AMERICAN AND FOREIGN JOURNALS.

Senecio Aureus.—Class Syngenesia, Superflua. Life-root, Gravel-root, by the Indians Nun-qua. This plant is found only in swamps and the vicinity of sluggish streams, growing in black muck, and may generally be looked for in the neighborhood of the Caltha palustris, which it somewhat resembles, the leaf being smaller and less succulent. Commonly but two leaves grow from the same root, on long petioles (6 to 12 inches), one leaf on each, serate and ovate-cordate. In May, it sends up a purplish flower stalk from 18 to 24 inches high, the leaves of which are pinnatified and toothed. The flowers are bright yellow, resembling the Taraxacum, and generally three or four in a sort of umbel. The plant remains green all winter, and as the young leaves start up in the spring the old ones decay. It has a small purplish horizontal root, lying near the surface, sending off minute radicles into the soft soil beneath. The whole plant is used, and is easily and rapidly gathered without digging, being pulled up, by clasping the horizontal portion.

Given in infusion it promotes perspiration, the secretion of urine—increases the force of the circulation, without producing any febrile tendency, and is particularly useful in those cases of anemia, attended with cold extremities, feeble circulation and inability to endure muscular exertion. In dysmenorrhea, a cupful of the warm infusion frequently gives entire relief, abating the pain and procuring a free flow of the catamenial secretion. It is highly useful in all cases, where a diaphoretic and diuretic agent is required, and more especially if the case may be attended with spasm of the urinary or uterine systems. It seems to exert an antispasmodic influence over the

capillary vessels, when the circulation is languid, enabling them to relieve themselves of accumulations of venous blood, imparting energy and power to the whole circulatory apparatus.—*N. Y. Jour. of Med.*

Rheumatism.—The prognosis is generally favorable so far as life is concerned, for it is a fact that no fever is so seldom fatal as rheumatic fever; but how long the disease will continue, or how frequently the patient may relapse, it is impossible to predict. It is one of the most painful and vexatious inflictions to which humanity is subjected. When several joints and the muscles moving them are simultaneously affected, the sufferings are very severe and the pains excruciating. The sufferer cannot bear to be moved, or scarcely touched. Even in its subdued form it is still very painful, and is not easily or patiently endured. The physicians of England tell us it often terminates in fatal disease of the heart; I have not been so unfortunate as to meet with such a case. I have known the same patient suffer nine or ten attacks in the course of twenty years, and survive them all and enjoy good health. The convalescence is frequently tedious and protracted: sometimes, however, the cure is rapid and permanent.

There have been various plans of treatment proposed and followed, such as the depleting, the narcotic, the tonic, and the stimulating; of which I shall now take some notice and briefly indicate my preferences.

Blood-letting is always the first remedy suggested. When carried to an extent sufficient to subdue the disease, it leaves the patient in a state of great prostration, and dooms him to a slow convalescence. It seems to have more control over the accompanying fever than over the local pain and swelling. On the whole, I am not in favor of excessive bleeding in rheumatism, & in many cases never use the lancet at all. I choose to commence the treatment by giving a full dose of calomel, say fifteen grains, followed by infusion of senna, or a dose of magnesia and rhubarb: then I give tartar emetic in small doses, and warm drinks to promote diaphoresis, and a pill of opium, two grains, or a teaspoonful of laudanum at night. Opiates I consider indispensable from the commencement to the termination of the disease. The employment of calomel and opium in small doses I have seldom found to have any beneficial effects. Thus exhibited, calomel is tolerated, rheumatic patients not being easily salivated: but the disease is not relieved. Opium in sub-

stance, or laudanum or the salts of morphine, in full doses, are always useful. To give temporary ease and to procure sleep are very desirable, and this composure tends to the resolution of the disease. This is all I have to say concerning the depleting and the soothing plans of treatment.

Respecting the tonic plan so warmly advocated by Dr. Haygarth in the last century, and lately revived in England, and in this country, I have no favorable report to make. The quinine has always aggravated the pain, and rendered the pulse fuller and harder. The late Dr. Bushe told me he had cured a case of acute rheumatism in three days, by the exhibition of quinine in doses of five grains, combined with the same quantity of rhubarb three times a day. Having a very severe and protracted case on hand at the time, I tried his plan four days, but without his success, and was obliged to relinquish all hopes of benefiting my patient in this way. I should think such a method applicable to those cases only which have their origin in marshy districts, and which are allied to intermittent fever.

Much has been said in favor of the tincture of colchicum in the treatment of gouty and rheumatic affections, and certainly I have found no single remedy so efficacious in relieving the severe pains, and in subduing the inflammatory symptoms in this disease. I think the best way is to combine the tincture of colchicum with equal parts of the tincture of aconite, and give a tea-spoonful of the mixture three times a day, and a tea-spoonful of laudanum at bedtime. This is an effective and satisfactory method of treatment.

I am of the opinion that the guiacum is better adapted to the chronic than to the inflammatory form of rheumatism. I use the following formula: ℞. pulv. g. guaiac ʒ ss. pulv. g. arabic, simple syrup ää. ʒ ij. aqua cinam. aqua font, ʒ iv. M. Dose one ounce thrice daily. This is the only admissible form of stimulating treatment.

The last plan of treatment I shall speak of, is the free use of nitre. A scruple of nit. potassa, and half a grain of antimony tart., givin in powder every four hours, often procures great relief, and generally speaking, is an admirable way of combatting this vexatious disease. The last case I had, I treated by giving, in the first place, fifteen grains of calomel, followed by a solution of half an ounce of nitre in a pint of lemonade, to be taken in the course of twenty-four hours with a large dose of laudanum in the evening, and sufficient of the tincture of colchicum to keep the bowels free and open. The patient was much relieved in a week, and had a good

convalescence. This patient is now nearly sixty years old, and has been subject to attacks of acute rheumatism since her second year. She cannot tell exactly how many times she has had the disease. Previous to coming under my care she has had it continue seven weeks, so that she could not move herself in bed. It ought to be stated here that the first attacks of acute rheumatism are generally the most severe and protracted. In the chronic form the reverse is true. I can suggest no better plan than the treatment above mentioned, for as to curing rheumatism in a day or two, or in one afternoon, as a Homeopathist once told me he had done, altogether exceeds my skill, not to say belief. I have never been so fortunate as to find any charms in the practice of medicine.—*Ibid.*

Poisoning by Hydrocyanic Acid.—Mr. Godfrey has published, in the *Provincial Medical Journal*, a case of poisoning by prussic acid, which involves some points of interest, not from the symptoms presented, but from the time which must have elapsed, after the imbibiton of the poison, before death occurred; and also on account of the various acts of volition performed by the suicide after he had swallowed the acid. It appears that, on the morning when he committed suicide, one of his daughters accompanied him to his office, where they were seen standing together; he sent her away with a message, and, after taking off his great-coat, proceeded to a room up stairs. After a short interval, he was seen to walk hastily out of the house, in the direction of the druggist's shop. He must have swallowed the poison—about half an ounce of prussic acid—when up stairs, for the bottle was found in the fire-place the following morning, the stopper on the table. It is presumed that he took the acid before placing the bottle on the fire, as no glass or similar utensil was found in the room; he must then have gone to the head of the stairs, a distance of ten average paces, descended the stairs, seventeen in number, proceeded to the druggist's shop, forty-five paces—realizing a total of fifty-five paces and seventeen stairs. He entered the shop in his usual manner, which was slow and steady: the druggist (a personal friend) asked him how he did? He replied in his usual tone of voice, "I want some more of that prussic acid." The druggist passed round the side and end of his counter to speak to him, and then perceived that he was in the act of placing his hand upon him, as if for

support, his eyes being fixed upon him with a stare. The druggist said to him, "You have been taking the prussic acid?" to which no answer was made. He was then placed in a chair, but fell to the ground and died soon after Mr. Godfrey's arrival. Although the facts above detailed are highly interesting and important in a medico-legal point of view, inasmuch as the suicide might avail himself of his knowledge to conceal his act, or an ingenious counsel might take advantage of it to confuse the medical witness, and thus obtain the murderer's acquittal, yet it is somewhat imperfect in its details. A knowledge of the amount of anhydrous acid contained in the preparation taken by the suicide, would add greatly to the value of the facts as the character of the effect produced might then be more correctly estimated.—*Ibid.*

Tracheotomy—Removal of a pipe stem 1¾ inch long—Cure.—Dr. Hall, of Burlington, Vt., relates the following case in the last (April) number of the American Journal of the Medical Sciences. The subject was a little boy aged four years, who drew the pipe stem into his windpipe while holding and drawing air through it between his lips. Every thing being in readiness the operation was thus executed:

"I made the incision through the skin and adipose substance from the os hyoides downwards to just below the thyroid cartilage, the lad all the while screaming, "Have you got the pipe-stem?" In making this incision I divided a vein of considerable size at the lower angle of the wound, which bled rather freely for some minutes. This was taken up, and a ligature applied by my assistants. The bleeding being arrested, and the trachea laid bare, I made a slight incision through its upper ring, when the air and spray burst from the interior. The child was now turned upon his left side, to prevent the oozing of blood into the trachea, and the perforation was immediately slit down with a probe-pointed bistoury, the length of the external incision being about 2½ inches. The integuments were now drawn apart with broad blunt hooks by Dr. Hatch, and search was made by Dr. Marsh for the foreign body with a probe, it not being thrown out, as is sometimes the case with lighter substances, by the forcible exit of air and phlegm in coughing. After some minutes search the pipe-stem was drawn out upon the point

of the probe, it having sunk by its gravity into the right bronchus, where it was detected and extracted by the probe which had passed into its hollow. While this was being done, respiration was performed wholly through the artificial orifice, and, of course, the voice was completely hushed. The face and countenance exhibited a deep flush, with a sort of painful scowl, the eyes partly closed, and the features somewhat distorted; but the boy was now perfectly quiescent. Having removed the foreign body, the lips of the incision were drawn together by sutures and sticking plaster; but the mucous membrane of the bronchia, trachea and larynx had become somewhat thickened by the irritation, and for thirty-six hours afterwards a part of the breath was forced out between the stitches at each expiration. This could not be controlled or impeded without the most imminent danger of fatal suffocation. A dose of calomel was administered that evening, and the patient was well nursed by his friends through the night. Next morning a cathartic operation had been procured, and it was evident that the deposition of lymph in the part was arrested, for the breathing was less laborious, and all the alarming symptoms were relieved. A powder of nitre, ipecac., and a litle opium was now directed to be given once in six hours, to allay the irritation and act as an expectorant. After two days this was discontinued, respiration having in a great measure become re-established. The child's recovery was speedy and complete.

Efficacy of Digitalis in a case of Pulmonary Hepatization.—Dr. Lauer relates in the *Medicinische Zeitung*, a case of pulmonary hepatization following pleuro-pneumony, in a Prussian soldier, successfully treated by a strong infusion of digitalis, with the addition of nitrate of potassa. Complete resolution of the hepatization was, he says, effected.

Radical cure of Hydrocele.—Dr. A. A. Harvey has successfully employed the following plan of curing hydrocele:—First, discharge the fluid with a trochar, or pocket lancet, and then apply a warm vinegar poultice all over the scrotum, in order to bring on inflammation, which generally takes place in a few hours, and becomes painful. When sufficient inflammation has been excited, remove the vinegar poultice, and apply a bread and milk poultice. In a short time, the pain and inflammation generally subside, and the cure is complete. Give a few smart doses of purgative medicine.—*Lancet*, Jan. 11, 1845,

Case of Twins; there being an interval of thirty-two days between their Birth.—John Irvine, a surgeon in the British navy, records, in the *Medical Times*, (28 Dec., 1844,) the following remarkable case. Mary F., aged 35 years, was seized with labour pains, on the 1st of October, at the full period of utero-gestation; and was delivered by Dr. Burleigh, of a healthy, but rather small-sized female infant. Three hours afterwards the placenta was cast off by the natural contraction of the uterus. Dr. Burleigh, on examining the patient at this stage, clearly ascertained that the uterus was still in a gravid state. After waiting some time for the renewal of parturient efforts, he left, with instructions to be sent for when labour commenced. On visiting his patient three days afterwards, he found her out of bed following her usual domestic affairs, and in good health. On the 2d of the following November labour pains came on, and just as Dr. Burleigh arrived, a large healthy male infant was born, and two hours afterwards Dr. B. extracted the placenta. The patient's recovery was as rapid as previously, for on the third day she was attending to her family concerns.—*Am. Jour. Med.*

Galvanism in Uterine Hemorrhage. (*Prov. Med. and Surg. Journ.*)—Dr. Thomas Radford has employed galvanism with great success in the treatment of cases of uterine hemorrhage, accidental or unavoidable, accompanied by exhaustion, and occurring before, during or after labour. "I am satisfied," he says, from positive trial of the remedy, that it will be found a most important agent in tedious labour, depending upon want of power in the uterus, and where no mechanical obstacle exists. I would also suggest the probability of its proving valuable in originating uterine action *de novo*, in cases where it may be considered necessaay to induce premature labour. It seems to me also to be worthy of trial in certain cases of monorrhagia in the ungravid state, where, on vaginal examination, the uterus is found to be atonic, as evidenced by its large flaccid condition, and the patulous state of the os uteri.

His mode of applying galvanism is the following:—"The brass ball of the vaginal conductor is to be passed up to the os uteri, and moved about, at intervals, on to various parts of this organ; at the same time, the other conductor must be applied to the abdominal parietes over the fundus uteri. Shocks may be also passed transversely through the uterus, by simultaneously applying the conductor on each side of the belly.

The application should be used at intervals, so as to approximate in its effects, as nearly as possible, to the natural pains. It may be continued until it meets the exigencies of the case.—*Ibid.*

Liquefaction and Solidfiication of Gases.—Dr. FARADAY brought forward this subject at the Royal Institution, as the Friday Evening Lecture, Jan. 31.

So long ago as the year 1823, he had been engaged in an endeavor to reduce gases into a fluid state; the means he employed had been to generate the gases in a confined space, and the result had been that he succeeded with the nine following:—Chlorine, hydrochloric acid, sulphurous acid, sulphuretted hydrogen, carbonic acid, euchlorine, nitrous oxide, cyanogen, and ammonia. Since that period the subject has been pursued by others, and a variety of means have been devised to reduce gases to the state of fluid, and further, to solidify some of them. Thus cyanogen and carbonic acid have been rendered solid, and arseniuretted hydrogen, fluid. The means of rendering carbonic acid solid, which may be regarded as the type of the others, as is well known, was devised by Thilorier; and by availing himself of the great cold produced by solid carbonic acid when mixed with ether, together with the air-pump to render the evaporation more rapid, Dr. Faraday has succeeded in reducing to a fluid state the six following gases:—Olefiant gas, phosphuretted hydrogen, hydriodic acid, hydrobromic acid, fluoboron, and fluosillicon; and of rendering solid, sulphurous acid, sulphuretted hydrogen, euchlorine, nitrous oxide, hydriodic acid, and hydrobromic acid.

The method of proceeding, and the principles upon which it is based, are as follow:—The freezing point of mercury is —40°, of carbonic acid,—70°; the cold produced by mixing solid carbonic acid and ether,—105°. By placing the latter under the air-pump the temperature may be reduced to—160°; and Dr. Faraday conceives that by using solid nitrous oxide, instead of carbonic acid, a temperature far lower may be obtained, and by its means, combined with a very high degree of pressure, he thinks oxygen, hydrogen and nitrogen, will certainly be reduced to the fluid or solid state. In fact, he had rendered oxygen fluid, but the enormous pressure had caused the gas to escape through the substance of the metallic stoppers used to close the glass tubes in which the gas was confined. Dr. Faraday had found that common flint glass

was quite inadequate to the purpose, and had substituted green bottle glass for it, with perfect success. Tubes made of this glass will bear enormous pressure, and if they give way they do not fly into pieces, but rend open in a vertical direction, so as to do no mischief. By connecting a reservoir of gas with a long metallic tube, at the end of which is attached a bent tube of glass, passing into a bath of solid carbonic acid and ether, under the receiver of an air-pump, and by means of a force-pump pressing into this tube the gas with a force equal to about forty or fifty atmospheres, it becomes fluid or solid in the glass tube, which may then be removed and sealed. It is thus, by combining great pressure with the lowest possible degree of cold, that gaseous bodies are reduced to a solid or liquid state; and Dr. Faraday hopes ere long to decide in this way the disputed questions as to the metallic or non-metallic characters of hydrogen and nitrogen.

Some of the results already obtained are highly curious and important in a scientific point of view; thus ammonia in a solid form is a crystalline white substance, heavier than liquid ammonia, and almost inodorous. Oxide of chlorine is a beautiful orange-red crystalline substance. Alcohol becomes thick and viscid, like cold oil, but does not crystallize; and so with caoutchene, oil of turpentine, &c.—*Lancet.*

Malpractice in a Case of Midwifery.—Another of those cases of gross ignorance or extreme carelessness in a medical attendant, which seem to be either much more common in England than in this country, or more readily reach the public ear there, has lately occurred in Norfolk. At the coroner's inquest, it was proved that Mr. Gatches, when in attendance upon Mrs. Lovett, in labor with her tenth child, attempted to remove the after-birth in an hour or two after delivery. Upon making efforts for this purpose, he withdrew a substance which the midwife and nurse described as a round, brown, firm heavy substance, with a string attached to it, which Mr. Gaches took away with him. The woman died in half an hour. A *post-mortem* examination was made, and the surgeon making it testified that the womb and a large portion fo the intestines had been removed, which he had no doubt was the cause of death. The coroner's jury returned a verdict of "manslaughter" against Mr. Gaches, who said the accident was altogether an error of judgment. He was given in custody of two policemen, who gave him time and liberty to find

bail, which he improved by escaping before the next morning. Mr. G. had a diploma from the Apothecaries' Company, but was not a member of the College of Surgeons.—*Bost. Med. and Surg. Jour.*

Hernia. By S. Gower, Esq., Surgeon.—When persons are thronging out of a theatre, one pressing another on, and each struggling to get first through a narrow opening which will permit but one at a time to pass, the theatre does not get emptied so soon as if all agreed to go out at such a pace as to leave the passage free for an uninterrupted sucession of one after another going through it quietly. If two stout persons, forced on by the crowd behind, should get wedged into that narrow passage, so that neither could stir, the obstruction, so long as it should remain unremoved, would be total, and prevent all egress to those behind. In the reduction of hernia by the taxis something not very dissimilar happens, from too violent pressure being made on the hernial tumor. I have seen violent efforts made at reduction, causing great pain to the patient; such efforts remitted, then repeated, to the injury of the contents of the sac, and then an operation talked of as the only method left. I have made gentle but firm pressure in the proper direction, just enough not to cause much pain. I have maintained such pressure, not relaxing it for a moment, but when one hand became wearied, substituting the other, till I have had the satisfaction of feeling the bowels slipping quietly, and almost imperceptibly, into their place, till the sac has been emptied. It may be set down as one rule of guidance, that you are not to make such pressure as will cause severe pain, for you thus not only cause pain, and do mischief to the parts, but crowd up and obstruct the narrow pass through which the bowels have to return. On making the requisite degree of pressure only, and patiently continuing it, a little air, or other contents of the intestine, will slip up, and a little bit of bowel with it, till you find the whole contents of the sac giving way under your hand. When this is percieved, the degree of pressure should be rather increased than diminished; but at any rate no relaxation of the hernia is felt to be on the move, till every fraction is returned. No good can be done by kneading a hernial tumor about like dough. *Lond. Lan.*

Opiates in Extensive Burns. By H. Rowe, M. D.—It is said that full doses of opiates in burns are followed by happy results; allow me to bear testimony to such facts. I have, for ten years and more, invariably used them in extensive burns, with unvarying success; and I remember, more particularly, one case that occurred to me while I was resident medical officer of the Demerara Seaman's Hospital. It was a boy, about 16 or 17 years of age, who was frightfully burned, the left arm, side, and abdomen, presenting a shocking appearance, and the nervous system, in proportion, violently affected (which is the real cause of deaths from burns). Opiates in *full* doses, mixed with effervescing draughts, and repeated after the effects had left, with protein dresssing of linseed oil and lime water in thick layers (which could be easily applied and kept on after the opiate had taken effect), with the *secundem artem* treatment aftewards, gave me the great gratification of seeing him leave the hospital well and hearty, which effect I must certainly attribute to the immediate use of opiates.—*Ibid.*

Poison of Snakes in Australia.—"The poison of the generality of Australian snakes appears to act differertly from that of the rattlesnake of America, or the viper of England; for whereas the poison of the latter species creates immediately a marked effect on the punctured wound, causing violent swelling, intense pain, and a yellow or livid hue over the surface, the bite of Australian snakes does not cause much pain or inflammation in the wound itself, but seems principally to affect the whole nervous system, rapidly causing the patient to fall into a comatose state. In this respect, the poison resembles that of the asp of Egypt.—Hodgkinson's *Australia.* T. R. B. *in the Am. Jour Med.*

Growing Potatoes by Galvanism.—On the 2d July, Mr. Wm. Ross presented to the New York Farmers' Club, some potatoes measuring seven inches in circumference. He planted the seed potatoes in drills on the 6th May last, using only leaves for manure. Across three rows at one end he buried a sheet of copper 5 feet long and 14 inches wide, and at the other end, 200 feet distant, a sheet of zinc of like dimensions. The sheets were placed in an upright position, and were connected by a copper wire, thus making a galvanic battery,

the moisture of the earth completing the circuit. On the 15th, some potatoes were taken from these rows, varying from one inch to one inch and a quarter in diameter. On the 2nd July, others were dug that measured 2½ inches in diameter. Some of the adjoining rows beyond the battery, were tried, but few of them had potatoes larger than marrow-fat pease—certainly none larger than a boy's marble. Mr. Ross had made other experiments with electricity from a common Leyden jar, and by applying the charges three times, he succeeded in producing cucumbers in the open ground, which measured five inches in length in thirty-seven days from the time of planting the seed.—*Mech. Mag.*

Death of Professor Daniell.—It is our painful duty to record the awfully sudden death of Professor Daniell, a philosopher whose name has become a household word to the electrician, and will always be remembered in connection with his admirable discovery of the Constant Battery, and his other contributions to electrical science. As professor at King's College, London, he was engaged in delivering a course of lectures on "Current Affinity;" or Electro-Chemistry. We had the good fortune of being present at several of these lectures, but were unwillingly absent on Thursday the 13th of March. On the afternoon of that day he lectured with his accustomed good spirits and in his usual cheerful manner, and concluded his lecture a few minutesbefore four o'clock, in order to be present at his place at the council-board of the Royal Society, of which he was foreign secretary. Before leaving the lecture room, he conversed with his known courtesy with some who were present; and making some lively remarks to a student who was interested in the subject of the lecture, he went to the Royal Society's apartments, which are at the Somerset House, close at hand. Within less than an hour from this time he was no more. Dr. Bowman, who sat opposite to him at the council-table, observed a strange fixedness in his eyes, and at first thought him to be in a fit. With the concurrence of those present, he opened a vein in the neck, but it was of no avail; the hand of death was upon him, and all human means were powerless. A few minutes elapsed, and all was over. The cause of his death was apoplexy, to which he had a constitutional tendency. His age was fifty-five years.—*Electrical Magazine.*

Foriegn Bodies in the System.—Mr. Chance detailed the case of a patient who came under his care some months ago with a wound in the arm, which he stated to have been produced by a liniment, which was ordered for rheumatic pains, under which he was laboring. Upon close investigation, it was discovered that some time previous to his suffering, he had run a piece of glass into his arm. He, Mr. Chance, cut down upon the most tender part, and extracted a piece of glass, one inch in length, and half an inch broad at the base, which lay between the tendons of the flexor sublimis and profundus. About a month afterwards, a blacksmith came to him with a piece of steel about half an inch square, which had been imbedded in his arm for about three years. Upon bending the hand upon the arm, a swelling was perceptible. The case was attended with pains of a rheumatic character. The swelling was cut down upon, and the piece of steel removed. He suffered from no pain afterwards. Mr. Chance enquired of members the reason of abscess following, in some cases, the introduction of foreign bodies into the lining tissues, and not in others, and also how the pains so closely resembling rheumatism could be explained.

Mr. Fisher related a case in which a bullet passed from the maxillary glands to the middle of the neck, and which when removed by himself, after a considerable period, was found to be coated with phosphate of lime. In answer to a question, Mr. Chance observed, that the parts surrounding the foreign bodies in his cases were perfectly healthy; there was no sac and no condensation of cellular tissue.

Mr. Hird remarked that, as a general rule, inflammation took place around the foreign body, and a sac was formed.

Mr. Fisher related the case of a man who fell from a ladder through a skylight. He cut himself much, but very speedily recovered. About eighteen months after the accident, however, he complained of great pain in the palmar fascia. Mr. Fisher made an incision into this part, and extracted three pieces of glass.

Dr. Ried recollected a case which occurred in St. Giles's Infirmary. The patient complained of great pain in the knee, on the side of which there was a moveable swelling, closely resembling a loose cartilage. An incision being made into it, a large darning-needle, much bent, and black, was extracted. The patient then remembered that it had passed in fifteen months previously.

Dr. Sayer related the case of a lady, forty-eight years of age, who accidentally received a pistol-bullet between the fifth

and sixth ribs. It passed between these bones without injuring them, or wounding the intercostal artery: it passed into the thoracic cavity, and there remained for several years. Occasionally, and particularly on the least exertion, she was subjected to distressing attacks, bearing every similitude to spasmodic asthma. The immediate effect of the injury had been the production of pneumonia, which, however, gave way under bleeding, and other antiphlogistic remedies. On examination after death, the right lung was found healthy, but the lung corresponding to the wound had become adherent by a pouch to the thoracic parietes. In this pouch was found a bullet. He recollected the case of a young lady in whom severe pain came on suddenly whilst she was riding, in the upper part of the thigh. She was obliged to be carried home. Upon examination of the part nothing could be detected, but she experienced considerable pain on pressure behind the upper part of the trochanter, and on an incision being made into this part, a needle, an inch and a half long, black, and coated here and there with oxide of iron, was extracted. She had no recollection of the time or manner in which the needle had become introduced into the system.—*London Lancet.*

A Lecture on the Modern Improvements in Surgery.—(Delivered 4th November, 1844.) Being Introductory to a Course of Lectures on Surgery in the School of Medicine, Park-street, Dublin. By JOHN HOUSTON, Esq., M. D. M. R. I. A. Apology—Chemistry and Histology—The blood—Inflammation—Union by the first intention—Military surgery—Amputation—Lower jaw—Joints—Subcutaneous sections—Autoplasty—Aneurism—Nævus—Tracheotomy—Hydrothorax—Tympanitis—Hydrocephalus—Fractures—Artificial anus—Urinary diseases—Lithotomy and Lithotrity—Rectum—Syphilis.

GENTLEMEN,—For success in any of the pursuits of life, a proper estimate of the importance of the object aimed at, and of the extent of the means to be used for its attainment are the first requisites. To no pursuit does this observation apply more forcibly than to that of medicine—a science which, by some strange perversion of fact, is regarded by men, generally, as one easy of attainment, but one which, nevertheless, as the practitioner finds, often when too late for remedy, requires much patient toil and hard-earned experi-

ence, and which, even at the end of a long and laborious life, is often left still unlearned. To inculcate, then, upon such of you as are beginners, as well as to remind those who have already made some progress in study, the extent and importance of the profession in which you are embarked, and to incite you to the necessary energy in its prosecution, I have thought of the plan, which I shall now proceed to carry out, of bringing before you some of the most striking improvements which have taken place in latter years, confining myself to the topics which legitimately belong to my own department of surgery, and the details of which I shall have the opportunity of filling up in the progress of the course hereafter. A lesson of this kind, by exhibiting to view the pursuits and energies of the great men of our profession, and the path to fame which still lies open to new aspirants, may, I hope, make a useful and lasting impression on the plastic and ardent minds of at least, some of my youthful hearers.

To render fully intelligible the modern improvements in surgery, it would be necessary to begin by demonstrating the modern improvements in anatomy and physiology, on which, especially, many of the former are founded; but whilst I cannot here stop to do more than allude to one or two, in illustration of the bearing of such investigations on practical surgery, I may take the opportunity of apprizing you that there never was a period in the history of the profession in which an exact knowledge of the structure and functions of the body —a knowledge to be obtained only by the combined aid of chemistry and histology—bore so directly on medical theory and medical practice. The retort and the microscope are now becoming as much the pocket companions of the practitioner as the lancet and the stethoscope; and it is curious to observe how the up-hill tracks of the stethoscope to public favor, in former days, have shadowed out that through which the microscope is now destined to wind its tardy way.

Recent researches in the physiology of the blood, in connection with the process of inflammation—that morbid condition which bears so important a part in all organic lesions—have thrown much light on disease.

The great mind of John Hunter saw and believed that the blood possessed in itself an independent life, even while circulating loosely in the bloodvessels, but he knew not the nature and seat of that vitality. The discovery was reserved for the physiologists of our days. There are particles termed globules floating in this liquid, about the 3000th part of an inch in diameter, or so small that myriads of them are contained

in a single drop. It has been ascertained, respecting these globules, that they are, each and all, endowed with a definite and uniform shape, and with a development, in virtue of which they pass, by successive transitions, from a condition of origin to one of final evolution—a veritable organization, in other words—properties which give them a claim to the title of life as much as those which justify the application of that term to the ovum from which proud man himself dates his being. The atomic particles of which the blood is composed being thus individually alive, collectively, they form a mass, of which it may literally, as well as allegorically, be said, "For it is the life of all flesh, the blood of it is for the life thereof." For the life of the flesh is in the blood.

But there is still another discovery which has been of late made, and which promises to be of great value in organic physiology—viz., that there are at least two kinds of globules in the blood, one yellow or red, the other transparent or white, and which differ from each other essentially, both in form and organization. The uses of these particles respectively, although involving some great and important functions in the animal economy, are not yet known with sufficient exactitude to be enunciated as ascertained facts in physiology. I may state, however, as a prevailing opinion, that the red globules, which consist each of a vesicle holding a ferruginous fluid in its interior, are the receptacles and the carriers of the oxygen which is destined to kindle and maintain the excitability of the different organs of the body, in the way that the oxygen of the atmosphere, propelled upon heated coals, raises and keeps up a flame; whilst the white globules are exclusively and essentially nucleated cells, floating stores of living elements derived from the food eaten—the true pabulum vitæ destined for the nutrition and growth of the frame. In furtherance of this latter view, Mr. Addison, of Malvern, has instituted experiments which show that an animal structure, bearing all the characters of cellular or rather fibrous tissue, may be formed, synthetically, out of the contents of these cells, by the addition of an alkali, and he ventures on the moral position that some analogous amalgam may take place in the growth of animal tissues from the blood, both in health and disease. Now, without offering any opinion on that part of the theory of Mr. Addison which bears reference to the exclusiveness of the white globules in this office, I may state that I concur in his statements respecting the fibrillation of their contents by the action of a dilute alkali, and their fecundity in the production of granules. And I will even

go farther with him and say, that those granules are themselves, each and all, possessed of an independent life. I have repeatedly watched them, and have shown them to others, when burst from their cell-membrane, performing sundry independent, and apparently voluntary, evolutions in the field of the microscope, until, to the eye, the whole looked like a moving mass of creeping things. In this view, then, the blood is doubly alive, as exhibited—first, in its forming and taking part in the repairs of the animal machine, and, secondly, in the independent movements possessed by the ultimate particles of its matter.

The red globules are small and pliable, and glide with a facility which partakes almost of a repulsion, through the fine capillary tubes of the vessels, whilst the white ones, of a size nearly one-third larger, round and determinate in form, lag slowly along, as if influenced by a sort of prospective attraction to their walls. You can observe, in the vessels of the web of the frog, under the microscope, this double current—viz., one of red particles running in the centre of the stream, and another of white ones, stealing along the sides of the vessels; and if in the frog, so equally in man, the only difference between them in this respect being, that in the former, where the vessels are transparent, the blood is to be seen by the eye, whilst in the latter, in which they are opaque, the fluid is hidden from the sight.

Such being, incontestably, the manner of the circulation in health; let us enquire what it becomes during inflammation. Under inflammation, the tendency of the white globules to linger in the part is increased. They accumulate in the capillaries, and so stop up the stream that the mass of the blood actually stagnates there; and hence the origin and final manifestation of the *rubor*, *tumor*, *calor*, *cum dolore* of an inflamed spot. These magnified diagrams of the circulation in the web of the frog's foot, taken from Dr. Hughes Bennett's new "Treatise on Inflammation," Dr. William's "Principles of Medicine," and Mr. Addison's "Experimental Researches," and which, particularly the first, must be attentively studied, will enable you to comprehend readily all that I can here stay to inform you of.

Whether this stoppage be the consequence of the white globules sticking mechanically in the capillaries, in such a way that they cannot get in further; or whether it arise from a want of tone in the bloodvessels increasing the disposition to attraction between them and the globules—which of these, I say, is the true explanation, is a point that at present en-

gages the attention of pathologists. Be this as it may, however, the fact, and it is a very remarkable one, is as I have stated. The part being thus laden with an over abundance of the organizable materials of the blood, its condition becomes somewhat analogous to one of excess of nutrition. and as such the state of inflammation is regarded by some pathologists. The process of adhesion in soft parts; the development of bone in connexion with bone, of muscle with muscle, &c., as the result of the imflammatory state, are all easily understood under this view.

In respect of union by the first intention—a process of great importance in reference to surgical operations—we are no longer puzzled and perplexed, by vague and fanciful notions, about vessels uniting mouth to mouth, or shooting their tendril-like tubes from one side of a wound to another. The ancients were perfectly acquainted with the fact of such inosculations, but they knew not the *modus operandi* of the process. A beautiful experiment, instituted by Troja, shows how alive was their attention to this subject. He cut across the leg of a fowl by three sections, in such a manner and at such intervals as to allow one section to be well healed before he made another, but so completely, on the whole, that no part remained which had not been divided. He then killed the fowl, and threw an injection into its blood vessels, when he found that the injection had passed as fully into the toes of the amputated as the unamputated limb, proving, of course, that it had found a way through the vessels formed *de nova* in the recently united textures. But Troja knew then no more of the matter than that the fact was so. Recent and valuable discoveries have, however, filled up this hiatus in pathology, and we now know that it is by a process of cell-genesis that the act is accomplished—viz., that the nucleated cells generated in the lymph exuded at the wound, and which serves as a sort of plasma or manure for their propagation, arranging themselves into all sorts of appropriate and necessary forms, are converted into textures analogous, in every respect, to those from whose neighborhood they have sprung; forming thus in one place, bloodvessels, in the very walls of which, as proving their cell-origin, the nuclei of the cells are discernible, lying before the eye, like pieces of wood pavement, at definite given distances, and that even long after the growth of the vessels is complete; forming, in another place, nerves; in another, cellular tissue; and so on, until a complete re-establishment of the living organized medium is effected. These newly discovered facts, in connection with others to which they

naturally lead, bearing on the maintenance of an healthy condition of the cells, as well as of the plasma in which they are to be developed, must have a most important influence both on the theory and practice of surgery.

For the present improved system of treatment of many surgical affections, much is due to the *surgeons of the army.* It was in the field of battle that a practice which had existed for ages—that of dipping the stumps of amputated limbs into boiling pitch or oil, to stop the hemorrhage—was first discontinued. On one occasion, after a great slaughter in battle, and when his stock of boiling oil had run out, Ambrose Parè was obliged to leave the stumps of many of the wounded to what he considered the more unprofessional plan of wrapping them round in wet clothes, and in the expectation of finding, also, such dead by the next day. Matters turned out quite otherwise, however; for whilst those treated by the oil had been, of course, in pain, sleepless and feverish, those whose wounds were dressed simply, had enjoyed ease and sleep, and lay comparatively cool.

From this incident, the resources of the constitution in arresting hemorrhage began to be understood, and a more humane and judicious practice to be adopted. The reputation of the surgeon, at the time, became universal. The soldiers disregarded danger whenever he was present. On an occasion in which Metz was besieged, and the wounded were dying without medical aid, Parè was brought into the city. The soldiers, when apprised of his arrival, cried out, "Our Parè is with us! we have nothing to fear!" and then fought to conquer. The late Continental wars found an Ambrose Parè in every regiment. Our own Hennen and Guthrie, and S. Cooper and Ballingall. and the great Baron Larrey of Napoleon, have transmitted to us the records of the discoveries and improvements, as well as of the humanity and bravery, of their respective soldier surgeons. Civilians, even, have been found zealous and courageous enough to quit the safe retirement and practice of the domestic circle for such scenes of carnage and of danger, in order to be able to bring back to us intelligence regarding the nature and treatment of wounds, as noticed in such wide fields of observation. John Hunter, John Thompson, and Sir Charles Bell, have immortalized themselves by their devotion and services on this head.

In regard of *ampututions*, the greatest modern improvement is, the frequency with which they are abstained from. When surgeons first got into the way of operating, limbs were removed without scruple, and, frequently, without just cause.

They would appear sometimes to have been lopped off, as if to prove how well the body could maintain its existence without them. Morand relates that in the Hôtel des Invalides, at Paris, mutilated objects are in recollection, who had lost their thighs and arms, so that, unless assisted, they could not stir, and it was necesary to feed and wait upon them like new-born infants. That such a state of things has long passed away is quite true, even within our own time still further improvements in this respect have been made, and many limbs are now saved, that, not long since would, to a certainty have been condemned to the knife. Sir Benjamin Brodie informs us, in the last edition of his work on the "Diseases of the Joints," that it was the practice which prevailed in his early days, of amputating white swellings, as soon as their character as such was determined, that gave him those opportunities of investigating the disease in its early stages, on the pathological facts derived from which the chief value of his book depends. Our museums in this city, likewise, bear evidence to the same practice of early amputation; and those who possess such preparations of disease will do well to take care of them, as they are not likely to get many other similar specimens from the hand of modern surgery.

The same observations apply equally to many other cases, such as diseases of the mamma and of the testis, ulcers of the legs, hernia, injuries of the head, compound fractures and dislocations, &c., all of which yield, oftentimes, to improved plans of treatment, short of having recourse to the knife. Regarding hernia, the name of O'Beirne will be hereafter associated with it, as having introduced a plan calculated to save many a valuable life. I allude to his method of drawing the gas from the interior of the bowel by means of a long gum-elastic tube; and to the efficacy of which there is now abundant evidence from all quarters.

In respect of operations, then, true surgery rather avoids than courts them; and, in this respect, unlike what takes place in all other professions, the improvements introduced into it cause a dimunition in the emoluments derivable from the practice of surgery. It is a well established fact, that the incomes of medical men are much reduced from this cause, and yet, nevertheless, they persevere with laudable disinterestedness in their endeavours to effect still further improvements. Is not this the highest degree of philanthropy? In this city, more perhaps than in any other in the world, isthis statement—regarding the avoidence of unnecessary operations true. I do not hold out to you, therefore, the prospect of the exhibition of numerous

surgical operations: on the contrary, I promise to you that, whatsoever hospital you may select for attendance, you will there see every judicious effort made at cure, by remedial means, before having recourse to the knife. The principle that you will see acted upon is, that to preserve a limb is better than to cut it off.

The diminution of surgical operations in this city is our highest boast; and I make it thus publicly, to contrast with one of an opposite character, which I have heard of as having been uttered elsewhere, for the ignoble purpose of attracting students to the schools. And I do so, still more especially, because I find that the records of the hospitals of Dublin have been pried into, in order to make a case for the assertion of such a discreditable comparison. But although, in one sense, there is a judicious diminution in the number of surgical operations, in another, there is an increase. Many operations, unknown in former days, are now in common practice.

The grand exploit of amputating the *lower jaw*, even from its articulations, the boldness of which has been only equalled by its success, has now become a standard operation in surgery. Persons afflicted with the distressing and loathsome disease [showing a drawing of it], for which this operation is undertaken, were formerly allowed to die without any idea being entertained of the possibility of saving them; but now that a great mind, relying on a sound knowledge of the capabilities of the human frame, has set the example of extirpating the diseased mass *in toto*, many surgeons have fearlessly followed in the path thus laid open for them, and have derived honor from the success which crowned the enterprise. The success of this opeation—both as regards immunity from danger, rapidity of convalescence, and the useful quality of masticatory apparatus which follows—is almost incredible. Mr. Cussack has operated twelve times, and here [showing them] are the preparations, casts, and drawings of the whole series. Now, in all these cases there has been but one death, and that, not as the result of the operation, but from the erysipelas. I was present, a few weeks ago, at one of these operations, in which he removed one half the jaw, including the articulation on one side. The operation was performed on a Wednesday, and on the Monday following, when I visited the patient, I found the great external incision united from end to end by the first intention, and the patient himself setting up by the fire and in the act of finishing a long letter to his friends. Before the end of the third week he was quite well,

and had traveled home to the country—a distance of upwards of one hundred miles. It is quite certain, too, that after such operations, when half and even more than half, of the jaw bone is removed, the individuals, nevertheless, retain good powers of mastication and of speech. And shall I not call this a *modern* improvement in surgery, when the great author and champion of it is seated amongst us in this room?

There is an improvement, of somewhat the same kind, and one for the introduction of which into practice, Sir Philip Crampton, of this city, and Mr. Syme, of Edingburgh, share the honor—viz., the removal, in diseases of certain *joints*, of the unsound parts only of the bones. In affections of the elbow-joint this may be obviously a great improvement, as the preservation of the hand is a most desirable object in every case. But, in regard of the knee, neither the value nor propriety of the operation is so striking. On the whole, however, it is a bold and important innovation on the old practice of cutting off an entire limb on account of disease in a part only; and reflects honor on the distinguished gentlemen who have concieved and carried it into execution.

Of all the modern improvements in surgery, none are more curious, and few more important, than those of the kind that are called operations by the *subscutaneous section*—operations which consist in dividing deep parts, more especially tendinous and muscular structures, from within as it were, or, in a manner, to exclude the part thus wounded from any communication with the external atmosphere. Examples of its application are seen in the new and successful methods of removing the deformities of club-foot, wry neck, &c. Surgeons, influenced, perhaps, in some degree, by the aphorism of Hippocrates, that "wounds of tendinous parts are mortal," were, until lately, afraid to meddle with such textures. Even so recently as the days of my own pupilage, warnings on this head were reiterated, year after year, in public lectures. Inflammation of synovial membranes; erysipelas, and lock-jaw, were the quicksands, held out as besetting the application of the knife to such textures. But now such dangers are only looked upon as chimerical. Five hundred operations by the subscutaneous section have been lately counted as having been performed without the occurrence of a single instance of bad consequence. The first attempt at an operation of this kind was made in Holland, in the year 1685, by Isacius Minius, but it was badly done, and, as it failed, was not repeated. The second was at Montpelier, in 1816, by Delpech, and although a certain amount of success accompanied the attempt

the operation was not followed up, and it became a dead letter. The third epoch in the history of the operation is 1831, when it was taken up by Stromeyer, in Germany, who practised, and advocated it so successfully, that it has found favor in all parts of the world, and has now become a favorite and fashionable operation. The discovery of a new principle in medical science is soon found to diffuse its benefits in various directions, and so it has here. The practice, which at first was adopted solely in reference to division of tendons in deformed limbs, is now applied to the relief or cure of many other ailments. It has been employed by my friend and colleague in the City of Dublin Hospital, Mr. Williams, for chronic thickening, with enlargement and distention of bursal sacs, such as that in front of the knee in charwomen, and for which, previously there was no known remedy but excision. This operation I have myself performed on several occasions with success. The practice of scarifying the ends of bones in ununited fractures, by the subcutaneous section, for the purpose of promoting the secretion of callus, is another new application of the principle. Deformities from burns and scalds sometimes admit of remedy by subcutaneous division of the contraction. And curvatures of the spine are said to have been removed by extensive hidden incision of the muscles of the back. M. Guerin tells us that he divided fifty muscles in a hump-back in this way, and not only was there success after the operation, but also an absence of all pain or local inflammation in the parts so divided. I mention this, however, not so much in laudation of this mode of treatment in such cases, as in illustration of the principle and the fact, that extensive deep incisions give rise, if unaccompanied by exposure to the air, to comparatively little local disturbance.

You have all heard of the operation for the cure of squint. This operation suggested itself out of the discoveries of Stromeyer, and deservedly holds a place among the modern improvements in surgery. But it is principally in its application to club-foot that such beneficial and unexpected results have flowed out of this discovery. This sad deformity, than which none other to which the frame is liable so thoroughly embitters life, or disqualifies for the taking a part in the common affairs of society, and which had, hitherto, set all attempts at remedy at defiance, now yields to the improved system, and is no longer the canker of domestic happiness, or the opprobrium of the medical profession. In childhood, this deformity may, with certainty, be now remedied; and, even in adult life, when the bones and the textures have grown into a confirmed mishape,

it is extraordinary how nearly they may be brought back to a normal state by attention and perseverance after befitting subcutaneous sections.

Almost discrediting the first statements that reached us on this subject, I proceeded to put the matter to the test of experiment, when the results proved, to my satisfaction, the true value of the improvement. One case of the kind I may be permitted to state, by way of illustration. It is that of a fine young woman with talipes varus, the cast of whose foot is here exhibited. She was nineteen years of age, handsome and intelligent, but exhibiting that timid and subdued mien which the consciousness of such a defect always gives to the character. The deformity was so immovably fixed, that I found it necessary to divide even a greater number of unyielding parts than common, as in addition to several tendons of muscles and other fibrous textures on the inside of the foot, I had also to cut across, completely, the broad plantar fascia. In three months, the foot presented, and retained, when stripped of the straightening apparatus, this perfect form, [exhibiting the cast]. In six months she could stand on it, laying the sole to the ground with tolerable firmness; and in eighteen months she walked steadily and well, and had already got several sweethearts in her train: which circumstance I mention as being, perhaps, one of the best proofs I could offer of her having acquired a neat foot and ankle, and as one, certainly, of the chief sources of her gratitude to me.

It is impossible to conceive the amount of good which in future times may accrue to society at large, from the carrying out of such an improvement; but we are, nevertheless, in a condition, in some measure, to estimate and to grieve for the losses which the world has sustained by even the tardiness of its introduction. Had this operation been known in the youthful days of Lord Byron, and applied to the relief of that nobleman's deformity, a genius which was soured by the consciousness of a personal defect, and which received therefrom a misanthropic bias, might have blossomed in the sunshine of generous boyhood, and, when mature, have brought forth manna, instead of gall and wormwood.

[TO BE CONTINUED.]

THE WESTERN JOURNAL.

NEW SERIES.—VOL. III.—NO. VI.

LOUISVILLE, JUNE 1, 1845.

MEDICAL SOCIETY OF TENNESSEE.

From a correspondent at Nashville, we have received the following particulars of the late meeting of the Medical Society of Tennessee, in that city.

The meeting was held on the first Wednesday in May, and seems to have called out an unusual number of addresses and communications. Several of the cases were ordered by the Society to be transmitted to the Western Journal for publication, and we have to request the Secretary to forward them at his earliest leisure.

Dr. Winston, orator of the meeting, delivered, says our correspondent, a very handsome address on the contributions to medical science by American physicians. He defended the character of the profession in our country, and insisted on their claims with much ability.

The President of the Society, Dr. Buchanan, read an essay "*on the difficulty of acquiring accurate knowledge in practical medicine,*" in which he attempted to show, that the French mode of cultivating medical science, *if the true mode*, is not the *only* true mode. This, he contended, is manifest from the fact that many diseases were treated as successfully before, as they have been since

the development of the peculiar doctrines of the numerical school. Hence, he would not hastily throw aside the old method of observation of symptoms, and of the effect of remedies in modifying them, even although we should be ignorant of the organic lesions upon which they depend, but, on the contrary, would take either one of the two roads to the Temple of Truth, as it might seem most eligible at the time and under the circumstances.

Dr. Robards read an excellent paper on the Epidemic Erysipelas of Maury county, which proved so extensively fatal there last spring and summer.

Resolutions were passed by the Society to erect a monument to the memory of the late Dr. Samuel Hogg. The funds are to be raised by subscription, and we doubt not that every physician in the State will feel a pleasure in contributing his part towards this worthy object.

The Society resolved to maintain its organization, and for the purpose of enhancing the interest of its next annual meeting, offer a premium of $50 for the best essay on Scrofula.

The friend to whom we are indebted for these items of news expresses a wish, that the address of Dr. Winston, and the other papers brought out by the meeting of the Society, were in the hands of the editors of this Journal. We join with him in this wish, and hereby express the hope that he will take measures to have them sent to us at an early day. The Society, he says, is not able to publish any of the long essays, in all of which, he supposes, there are suggestions worthy of being given to the profession.

We would here remark, that we have never received some matters ordered to be communicated to this Journal by the Society at its meeting a year ago, and that they would still be very acceptable.

Y.

ESQUIROL ON INSANITY.

The American profession is indebted to Dr. E. K. Hunt for a translation of this standard work, which was issued, a few weeks since, by Lea & Blanchard in their accustomed style of accuracy and neatness. Esquirol is a name so familiar to all who have paid the slightest attention to maladies of the mind, that it is quite un-

necessary to say anything in commendation of any publication from his pen. He stands before the world as a master in his art. His authority is the highest on all the questions to which he devoted the energies of his active life. His treatise has become a classic in our profession, and we cordially hail this translation which will place it in the hands of so many of our brethren. Y.

NEW WORKS.

Professor Gross is now in Philadelphia, superintending the publication of a new edition of his Elements of Pathological Anatomy, which will be issued in a single volume during the summer. The new edition will embrace whatever has been furnished to the author by his reading or observation in the last five years, not contained in the present edition, and will make an addition to the work of nearly three hundred pages. Many portions have been re-written, a number of new chapters have been introduced, and the illustrations by woodcuts multiplied to an extent which must very materially enhance the value of the treatise to students of medicine.

Professor Gross has also been engaged upon a new edition of Liston's Elements of Surgery, which will be ready for press early in the autumn. Y.

A NEW MEDICAL JOURNAL.

We have received the first number of a monthly journal of medicine, issued at St. Louis, by the Medical Faculty of Kemper College. Among other papers, this number contains communications from Professors Barbour and McDowell on practical subjects, and evinces a full share of spirit. The medical schools of St. Louis have, now, each a journal and organ, and we may expect to see an animated contest between them for the largest amount of public favor. *E collisione scintilla* is an old maxim, the truth of which, we have no doubt, our St. Louis contemporaries will confirm.

Y.

DICTIONARY OF PRACTICAL MEDICINE.

This valuable work, we are glad to perceive, has reached its sixth monthly part, and is going on steadily to its completion. No publication of the times has commanded more universal or higher admiration than Copland's Dictionary, and this sentiment of the press, we are persuaded, will be warmly responded to by the profession all over the country. We are obliged to improve, as a profession, with such works as the Cyclopædia, and the Dictionary of Practical Medicine, in general circulation. As works of reference they are invaluable. No physician who has had an opportunity of consulting them will feel that he can get along without one or the other of them, and all who are able will enrich their libraries with both. Y.

WORCESTER LUNATIC ASYLUM.

Dr. Edward Jarvis, who has for many years taken the liveliest interest in everything that relates to the insane, and to whom the profession owes some valuable papers on the Lunatic Asylums of the United States, has forwarded us the twelfth annual "Report of the Trustees of the State Lunatic Hospital, at Worcester," a document of great interest from which we shall make extracts for a future number. The institution for the insane, at Worcester, is one of the ornaments of our country and of the age. By the way, will not some friend at Lexington inform the public through our Journal what is the present condition of the Lunatic Asylum at that place? Frequent inquiries are made of us respecting its advantages, which we are not able to answer as definitely as we could desire. Y.

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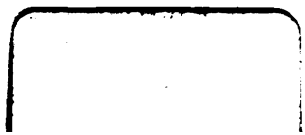
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